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WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
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MESSRS. WATSON BROTHERS beg to notify to their friends and the public generally that Mr. W. H. CUELL has retired from the firm, in accordance with a clause in the deed of partnership; and having also sold to the remaining partners all his right, property, and interest in the business hitherto carried on by J. Y. WATSON, F.G.S., NAPOLEON FREDERICK WATSON, and himself, under the name of "WATSON and CUELL," the same will be carried on in future by Mr. J. Y. WATSON and Mr. N. F. WATSON, under the designation of "WATSON BROTHERS," and they take this opportunity to return their most sincere thanks for the great patronage bestowed and confidence reposed in the firm for 24 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column. In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts; but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

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Original Correspondence.

REPORT OF THE SELECT COMMITTEE ON MINES.

SIR,—As the report just presented to the House of Commons by the Select Committee on Mines, and referred to in last week's *Mining Journal*, has been looked forward to with the greatest interest by all persons connected with the coal and iron trades of the country, perhaps you will allow me to make a few remarks with reference to it. That it contains a vast quantity of interesting information from the most reliable authorities few will deny, whilst, on the other hand, it admittedly shows a great diversity of opinions on some important items. It is, therefore, to be feared that the recommendations of the committee, as a whole, will not be altogether satisfactory to either the owners of mines or their workmen, whilst in one or two instances the suggestions appear impracticable. It will be recollected that the appointment of the committee was, to a considerable extent, the result of what was termed "the Miner's Petition," presented to Parliament in March, 1865, and said to have been signed by upwards of 60,000 persons connected with the coal and ironstone mines throughout the country. Amongst other things prayed for in the petition were—the abolition of female labour on or about pit banks, the compulsory payment of coal by weight, and power for the workmen to appoint a check-weighman, the restricting of the working hours of boys between 12 and 14 years of age to eight per day, and the appointment of a sufficient number of sub-Inspectors to aid the present Inspectors, so as to render the inspection of mines really efficient. There were also various other grievances complained of, while it was alleged "that the fearful sacrifice of lives in mines abundantly show that the legislative measures hitherto passed have totally proved inadequate for securing the personal safety of the workpeople." The recommendations of the committee for meeting the requirements of the petitioners, and ensuring greater safety of the workpeople, I will take *seriatim* in the order in which they stand.

In the first place, then, the committee sets out with a not very complimentary suggestion, so far as the fair sex is concerned—the members consider that the employment of women on pit banks does not require legislative prohibition or further interference. Now, I think that there will be found very few persons who will coincide with that opinion, but, on the contrary, will agree with the petitioners, that the employment of females at such work is "degrading to the sex, leads to gross immorality, and is a fearful blot on English civilisation and humanity." Now, considering that the miners, of all other persons, are the best able to judge as to whether the employment of females on pit banks engenders immorality, and, as they say it does in such emphatic terms, I fully endorse their desire to have them kept from such contaminating influences, and concur in the opinion expressed by Mr. C. Morton, until recently one of the most experienced Government Inspectors of Mines in the kingdom, that the evil complained of should be abolished. To those who have seen the girls at work in Lancashire on the pit banks, few but must have held that their position was most degrading, unseemly, and in no way creditable to our boasted civilisation, and far from being the cradle which any of the mothers of England ought to be nursed in. It is to be hoped that the Legislature will take a different view from the committee, so that after the lapse of a year from the passing of any measure founded on the report, the employment of females in connection with collieries shall cease.

The committee recommend that no boy under 16 years of age shall be underground for more than 12 out of the 24 hours. To this the miners strongly object, on the ground that as the adults in many districts only work eight hours per day, and in scarcely any more than 10, it would be unfair to tax the powers of the boy to a greater extent than the man. That point, I have no doubt, will be a debatable one in the House of Commons, more especially as Parliament has limited the hours of young persons working in factories to 10. As the Miners' Association wished to have the working hours of boys between the age of 12 and 14 years restricted to 8 per day, it is probable that the limitation to 10 would be accepted as a compromise, and would be a satisfactory solution of a rather difficult matter. That working 10 hours per day in a colliery is sufficient for any boy from 12 to 14 few will deny, and as a settlement of the question of "miners' grievances" should be of a lasting character, a little liberality on a question of such importance should be shown in favour of those who are comparatively helpless, so far as having a voice in what so seriously affects them. This is rendered the more necessary, from the fact that the educational clauses of the Mining Act in many, if not nearly all, districts are a dead letter, the monthly certificates of school attendance by boys between 10 and 12 years of age who cannot read and write not being required to be produced.

That some alterations with regard to the inspection of mines was necessary has long been apparent, so that the appointment of an additional number of gentlemen of the same standard as those at present employed, as recommended by the committee, cannot be otherwise than satisfactory. That the present staff of Inspectors is in every respect insufficient, is abundantly shown by the fact that inspection hitherto has generally been confined to visiting collieries after the occurrence of some fatality, whilst the object of appointing mining engineers to such posts, simple-minded people have generally supposed was for the purpose of inspecting, with a view to preventing accidents, and seeing that every precaution was taken to ensure the safety of the workpeople, whose lives are too often at the mercy of one or two often incompetent men. As there are now about 3250 collieries in the kingdom, it is impossible for any 12 men, however able and desirous of doing their duty, to properly look after that number, or even to visit half of them once during the year. In Yorkshire, where the recently-appointed inspector, Mr. Southern, has been most indefatigable in visiting the most dangerous collieries in the district, and making himself acquainted with the modes of working, there are upwards of 420 to be looked after. In South Staffordshire and Worcestershire Mr. Baker has no less than 542 in his district, and Mr. Wales about 340. That the proper inspection of such a number is a physical impossibility will be apparent, and, as a consequence, there can be no doubt accidents of a fatal character have taken place which actual inspection might be averted. Such, indeed, might have been the case at the unfortunate Oaks Colliery, which the Inspector, Mr. Morton, admitted he had not been down for some four or five years before the terrible catastrophe of December last. Had he been down a few months before, it is not improbable that the calamity alluded to would not now have to be mourned over. With such facts in view, the appointment of additional Inspectors will be looked upon by many—the working colliers in particular—as an additional safeguard for those working in collieries, more especially if their duties are, to some extent, remodelled, and so defined as to include the actual inspection of the mines in their respective districts, instead of being confined, as at present, to visiting collieries after accidents, for the purpose of tracing the causes. The great object should be *prevention*, for which purpose inspection should be a reality, with a view to seeing that the best and safest modes of working mines were being adopted.

The committee had evidently in view the late loss of life at the Oaks and Talke Collieries, when they recommended that not more than 100 persons should be employed in any mine, unless the same was divided into separate districts, the Secretary of State having power to dispense with the strict and immediate application of the recommendation—a highly necessary addition, certainly, seeing that the indulgence would have to be granted to nearly all the collieries at present being worked. The district, or panel system, by which a colliery is divided into compartments, no communication existing in the ventilation of one district with another, is one that there could be little doubt would work well; but to introduce such a system into collieries at present worked to a considerable extent would be all but impossible. Taking collieries where from 500 to 1500 acres or more have been worked out in all directions, it is not at all clear how the system could be introduced. In opening out new collieries, however, it might be advantageously adopted, but even then it could not be depended upon as assuring freedom from accidents, seeing that it came out in evidence, during the Oaks enquiry, that one of the greatest explosions in the Wallsend Colliery occurred when the panel system was being tried. It will, therefore, be apparent that the recommendation cannot be carried out, so far as regards the greater number of collieries

in the United Kingdom, and even where it can too great reliance ought not to be placed in it.

With regard to the appointment of stipendiary magistrates in populous mining districts, there does not appear much to be said either way, seeing that the number of cases tried in local law courts, in which the masters and workmen are in antagonism, is comparatively few. A simpler system was suggested to me a few days since, by a solicitor in large practice in the Police-Courts, and who has had a great deal of experience in cases arising out of colliery disputes. He thinks that giving parties going before magistrates the power to have their cases decided upon by a jury of five (as in certain cases is allowed by the County Courts) would give mutual satisfaction. The view, I believe, is a new one, and is certainly worth being considered.

On a very important matter with regard to the working of collieries—the appointment of thoroughly qualified persons as bottom stewards—there appears to be no suggestion made by the committee. In many instances the entire charge of the workings of collieries are entrusted to men who have been advanced from the ranks of the working colliers, many of them not familiar with the nature of gases, and yet the lives of hundreds are in their keeping. With such a serious responsibility, men only of acknowledged ability and experience, well acquainted with gases, and the character of the seams of coal being worked, should be appointed to such situations. They should also be endowed with the faculty of comprehending any indication of danger, and anticipating its consequences. To obtain fit men some sure means should be adopted for testing the fitness of persons applying for such situations before being appointed. As the matter is one of considerable importance, and in which the miners take a great deal of interest, it will in all probability be brought under the notice of the House of Commons when the recommendations of the committee are introduced into that august assembly in a tangible shape. In the meantime the ventilation and discussion of the various points brought before the public by the committee cannot fail to be of advantage to all interested in the prevention of accidents in coal and ironstone mines, and the welfare of our colliery population.

CONVERSION OF PIG INTO MALLEABLE IRON, THE RICHARDSON PROCESS.

SIR,—My attention has been directed by Mr. Richardson to a short paragraph on his process for the conversion of pig into malleable iron, which appeared in last week's *Journal*, and since in noticing it you have given the public to understand something really very different from the process itself, he has requested me, as the author of a paper on the same subject, which appeared in the August part of the "Practical Mechanics' Journal," to set you as well as your readers right in a matter which promises so much benefit to manufacturers of iron. In the paragraph I refer to you state that "common pig iron was piled on the puddling hearth in the ordinary manner, and as soon as it was melted it was wrought with tubular rables for eight minutes, the charge being then balled, and taken out as usual." Now, such a passage is not only unintelligible, it is, moreover, decidedly incorrect. In the first place, what are we to understand by the expression "it was wrought with tubular rables"? Your readers will surely puzzle in vain to see the virtue belonging to tubular in lieu of our ordinary solid rable. You do not give a fraction of a clue as a reason why the rable is tubular; but if you had told them that its object was that through it air or oxygen is introduced into the molten mass, they would have understood you.

The paragraph next gives us to understand that as soon as the tubular rables are withdrawn the iron is balled up and finished in the usual manner. This is not the fact, for in place of being in state fit for balling as soon as the injection of atmospheric air ceased, the metal has not then, nor until some time after then, separated from the slag; indeed, the puddler pushes and turns about the metal for several minutes after the blast is shut off, and, in the experiments which have been made, it has generally been between 20 and 30 minutes after the blast was shut off before even the first lad was out. This is fully set forth in the table of experiments published in my paper above referred to.

You then state that "Mr. Richardson claims that the effect of his process is to facilitate the elimination of the phosphorus present." Now, Mr. Richardson claims nothing of the kind as yet, for it is not known whether or not more phosphorus is eliminated than under the ordinary puddling process; but reasoning from the circumstance that the phosphorus is not separated in the Bessemer convert, and that a large percentage is got rid of under the old system of puddling, I was led to believe that a theory on this point, first propounded by Dr. Percy, and, I believe, afterwards assented to by Prof. Abel, of Wootton Bassett, would yet be found practically realised in "the Richardson process," and in that supposition my paper reasons out the probability; for such it is, and no more, until the qualitative analyses read me. I must, in conclusion, ask you to be kind enough to insert the letter in your next impression, in order that the mist which has been raised may be dispersed; and, further, that the truth of what promises to be so valuable an aid to our iron industry may not be suppressed.

Glasgow, Aug. 6. ST. JOHN VINCENT DAY, C.E.

MINING, AND MINING COURTS IN DERBYSHIRE.

SIR,—Derbyshire, until within the last few years, was one of the most important of our lead-producing districts, as well as the oldest and most noted in history, yet at the present time its mines are, probably, the least known, although they are situated in a locality where there is admittedly to be found the finest scenery in the Kingdom. Famed for hundreds of years, the *locale* of the mines is at present a veritable *terra incognita* to nearly all but the residents, and even the indefatigable Mr. Hunt, Keeper of the Mining Records, has been able to give the names in it the same as he has with regard to all other districts. Still there are connected with the locality peculiarities of the most singular and interesting character, and so opposite are they to what can be found in any other mining community in the kingdom, that they are worthy of permanent record, and be more generally known.

The principal seat of the mines is the small town of Wirksworth, not as yet connected with any railway, and of which manner of wappentake the Queen, in right of her Duchy of Lancaster is seized, and so entitled to certain mineral dues, of which Mr. Arkwright the lessee. For upwards of 400 years, at least, the town has enjoyed that position, and up to the present time has been the seat of certain courts for adjudicating upon all matters relating to mines and minerals. Those courts are called Barmote Courts, and their jurisdiction includes the adjusting within the wappentake of all disputes as to mineral and other rights relating to mines, as between lessee and miner, disputes as to titles, claims for money due for furnishing mines, or for work done with respect to them. They are presided over by a Steward, generally a barrister of some standing, and have a grand and petty jury, with a staff of officials, and the proceedings are conducted in the same way as in the ordinary courts. The jury for hearing causes is taken from a list of 48 persons—"miners, owners, and maintainers of mines." All the names are put into a box, and after either side has made objections, to the extent of six each, if they think fit, the 12 agreed upon are left to decide the issue. The duties appertaining to the Court are not of a merely honorific character will be seen from some of the singular and extraordinary privileges which the district holds out to persons of anything approaching an enterprising character. In the first place, the miners' articles state that—

"It is lawful for all the subjects of this realm to search for, sink, and mine or veins of lead upon, in, or under all manner of lands, whether the same ever they may be (churches, places of worship, orchards, gardens, pleasure grounds, and highways excepted); but if no vein of ore be found, and the person making search abandon it for fourteen days, the land must be levelled and made good by the person making the search."

In addition to being thus able to search for ore in the wappentake, &c., without consulting or having authority from the landowner, the miner is entitled to have provided a footway for passengers or carts from the highway nearest the mine, and also from it to the nearest stream of running water, not being ornamental, and for those advantages no compensation is to be claimed by the owner of the land. For the mineral rights, however, the miner has to pay the duties called "lot and cope" to the lessee, the former being one-thirtieth of all the ore raised, and the cope 6d. for every load

ore measured, &c., and certain other dues, including tithes. When the ore is found, two meers (29 yards each) are measured out to the finder, and one adjoining to the lessee; but the finder is also entitled to each succeeding meer, not exceeding fifty. The laying out of the meers is entrusted to a Barmaster, who is entitled to a "dish" of ore for every meer set out. The dish, or "standard of measure," by which the value of the ore is tested, is an oblong iron one, kept at the Barmote Hall in Wirksworth, and presented by Henry VIII. in the year 1513, the inscription on it stating that—

"The dish to remain in the Moot Hall at Wirksworth, hanging by a chayne, so as the merchants or mynours may have resort to the same at all times to make the true measure at the same."

and in that state it is now kept, and was unchained a day or two since for the inspection of the writer.

With all the advantages enumerated, and the privileges enjoyed by the miners, it is rather surprising to find the condition of that body is far from good. Although, as a rule, the hours of working are confined to six per day, the majority of the workmen can scarcely get enough to maintain themselves and families, whilst most of the mines are remarkable for their truly primitive character, being devoid of machinery. That occasionally a tolerably profitable vein of ore is met with there is every reason to believe, but to fully develop the mineral produce of a district—more especially one which, to a considerable extent in some parts, has been worked out—machinery and capital as well as manual labour, become necessities. In some of the mines where those appliances are in operation favourable results have been obtained. As it is, however, there has been a gradual falling off in the quantity of ore raised for some years past. In 1857 the quantity of lead extracted by the melters was 6061 tons, in 1860 it had fallen off to 5028 tons; 1864, 4622 tons; and 1865, 4787 tons. For the last year matters have not improved, although a few of the mines are paying fairly enough, several, however, of those belonging to companies have done very little indeed, and scarcely any one of them but is quoted at a considerable discount. That a good deal of distress must exist throughout the district may be inferred from the fact, stated by one of the barmasters, that he had known the vicarial tithes on ore (one-fourth) amount to as much as 1100*l.* a year, but of late they had scarcely realised 100*l.* Seeing some part of the district is being drained, there may be a better future for the miner, and which will doubtless be enhanced considerably by the opening out of direct communication with Derby by the railroad now all but completed.

How far the working miner has availed himself of the privileges of the district in which he lives by becoming a master without capital it is not very easy to determine; but be that as it may, the system has evidently not worked to his advantage. On the other hand, the working of the Barmote Courts in the mining district of South Derbyshire has been most satisfactory, seldom leading to appeals to any of the higher tribunals, and it is worthy of consideration whether some such machinery could not be made available in the case of disputes between masters and workmen generally, which of late years have tended so much to drive the trade out of the country, and to injure the working man himself, as well as his family. As the question relative to Trades Unions will have to be taken up by Parliament, the fact that the working of such a court as that at Wirksworth—and which has been in operation for some hundreds of years—has proved beneficial, may be suggestive of the establishment of similar courts of appeal for the settling of disputes between employer and employed.

THE PROGRESS OF MINING—AS A SCIENCE, AND SOURCE OF COMMERCIAL WEALTH—No. IX.

SIR.—Mining is such a great and important undertaking, influencing as it does the general condition of the business of the world, that it would be most unreasonable to suppose it could proceed without many phenomena influencing its course favourably, and many unfavourably. Some of these have been noticed, but others yet remain to be canvassed: amongst them the extent to which the earth's crust is saturated by water is an important enquiry, and another, as to the depth the metallic veins may be found charged with ore, is of great importance. It is not possible in the present state of science or theory to answer these questions with mathematical precision, at the same time it is desirable to throw such light as we can upon them. It is clear that if important deposits of metal exist in parts of the veins embedded in the earth's crust which are devoid of water, one of the great difficulties in the pursuit of metal will be done away with. In looking at England, surrounded as it is by the sea, and some of its most productive ground, such as the promontory of Cornwall, forming but a narrow neck of land in the sea, where every attempt at sinking is immediately impeded by the influx of water, it would appear to demonstrate that the whole rock composing the crust of the earth is saturated by water, as the whole surface of the earth seems to be embraced by ocean. For example, if we take from the eastern end of the Mediterranean westward, we have the water level preserved to America, and, again, on the western side of the narrow Isthmus of Panama to the coast of China, from whence the water level is preserved along the coast of India and Africa until it joins the Mediterranean waters at the Straits of Gibraltar, showing a uniform level with respect to the centre of the earth all around the globe. Applying the reasoning as to the islands of the British kingdom to the greater territory of the world, one might expect to find the rock, composing all countries, impregnated with water to a relative level with the line of the surface of the oceans, but on going a comparatively short distance to the east of the Mediterranean waters immense hollows are found, such as that of the Dead Sea, upwards of 1200 ft. down in the crust of the earth below the level of the surface of the Mediterranean; and, consequently, below the average level of the great waters forming the covering of the whole submerged earth. Now, a level taken up at the level of the Dead Sea would, if extended, unwater any mineral veins 200 fathoms below the surface of the Mediterranean Sea, and by a parity of reasoning below the Atlantic and Pacific Oceans, and all adjoining waters, suggesting the possibility that much of the rock composing the crust of the earth is anhydrous. It is reported that near Wigan there is a colliery which in its deepest stages not only does not yield underground water, but positively absorbs water. It is a curious philosophical enquiry, what becomes of that water? If it is absorbed, it cannot be delivered to the ocean except by great pressure, which is, in fact, impossible, as it would be more than counterbalanced by the pressure of the ocean itself: it might be held in a porous rock, as in a sponge, or it might find its way by veins into chemical laboratories, where it might be exploded in the shape of steam or gas, and cause some of those commotions in the rock which we are occasionally in the habit of witnessing.

But, if these facts go to prove that the general crust of the earth below a level at a certain distance below the surface is dry, then deep mining will be free from one of the great difficulties attending surface mining, always supposing that the metals go down, and of this problem as to the existence of metal in depth we will take a hasty glance in concluding this paper. In arguing upon this subject we cannot do better than follow the speculations of such men as Murchison, De la Beche, and others, who assert, principally from measuring the angles of the component beds, that some of the clay-slate formations are of a thickness of 20,000 feet. We all know that these great deposits have been laid down in fine laminae, and that during an immensity of time these great structures have been building up by thin horizontal layers, which have, again, been divided into thin divisional planes, more or less perpendicular, running from south-west to north-east; that early in the creation of these deposits at right angles to these plates we have evidence of the commencement and continuation of the formation of the metallic veins or lodes; that these arrangements have been, again, broken up and divided into planes cutting them obliquely from south to north, nearly in a line of the present magnetic needle, which indicates the currents of electricity in more modern times. But, as we find the evidence of the formation of metals connected with the first great electric divisions, which appears to have been in action contemporaneously with the formation of the earlier layers of slate, it seems reasonable to conclude that these great deposits of rock will be permeated by metal to their entire depths; and if this be so, our present mining, which has only penetrated to a depth of 2000 feet in these great measures below the level of the sea, may, possibly, have to be carried down for many thousands of feet deeper by a process of mining that may not have to contend with much water. I am aware that this may be considered

highly speculative, theoretic reasoning, or even hypothetical, and too imaginary to be taken into the confines of the field of science; and yet we are forever troubling ourselves about the formation of the moon and planets, and what science has accomplished with reference to the heavenly bodies has had a great influence on terrestrial things, and dominates much of the common action of our lives; then, why should we not study the composition of a planet that is put before our own eyes, and so placed tangible to all our senses, which seem to be given us expressly for the purpose of making experiments upon it? And if those experiments prove favourable, there is no knowing to what extent they may affect the good of the world generally, and of mining in particular.

PETROLEUM IN SHROPSHIRE.

SIR.—I send you an extract from an old book I met with to-day, which may interest some of your readers.—Aug. 3. E. W. S.

"COLEBROOKE DALE, a winding valley in the eastern part of Shropshire, on the Severn. In making a navigable canal to the Severn in 1757, several springs of excellent *native tar* were discovered, and flowed so copiously at first as to afford from 70 to 80 gals. per day, so that barrels could hardly be got ready for it."

THE DOWSING ROD.

SIR.—In the year 1845 I went with a party of believers and unbelievers upon a "dowsing" expedition in Cornwall, and the result, with the opinions formed after considering the matter in all its bearings, was published in my "Gleanings among Mines and Miners," and afterwards in a more comprehensive form in a communication to the "Journal of the Society of Arts." I cannot, however, lay my hands on a copy of either of these documents at the present moment, but may state, in reply to your correspondent, Mr. Fryar, that we came to the conclusion if there were really anything in the dowsing rod it might be owing to *electricity*. The backs of lodes crop up to the surface, and strong currents of electricity are supposed to pass through them. Professed dowsers are generally men of nervous and excitable temperaments, and peculiarly susceptible to electrical influences. The rod is carried with the part corresponding to the handle of a fork towards the face, the parts corresponding to the prongs of the fork are firmly grasped by the hands, the elbows tightly pressed to the sides, and the whole position cramped and constrained; in fact, the muscular and nervous system may be compared to the strings of a fiddle wound up tight; and the dowsing passing in this way over the back of a lode may receive a slight electrical shock, and very little in his constrained position is enough to bring down the upright part of the rod. There may be more in electricity than yet acknowledged, or "dreamt of in our philosophy;" and the theory of the formation of mineral veins through its agency appears to be more worthy of acceptance than many others. There is no doubt that most large deposits of ore are found near cross-courses (or beds of clay running contrary to mineral veins), and the theory is that these cross-courses stop the currents of electricity, and the minerals held in solution are condensed, and form the ore. That water does hold mineral in solution is well known, and anyone visiting the Devon Great Consols may see the water pumped from the mines running clear as crystal into a tank filled with scraps of old iron, over which it passes, and deposits many tons of copper in a year.

Aug. 7.

MINING IN CORNWALL.

ELIGIBLE OPPORTUNITY FOR THE INVESTMENT OF CAPITAL.

SIR.—In all former cases of mining depression the reaction in no case was so long deferred as in the present. I remember several such cases,—the most disastrous of which was that of 1848, when the prices of tin and copper were lower than they are at present. But the depression of 1848 was more temporary: it was quickly succeeded by an unusual activity in mining. What greatly aggravated and prolonged the evils consequent on the low prices of those metals in 1866 and 1867 was the unprecedented simultaneous failure in banking and other companies. Whatever may be the height to which the prices of metals attain, miners cannot bear to see a retrogression—"onward" being their motto. The prices of tin and copper at the present time admit of the profitable working of many mines in Cornwall which are now either idle or partially worked. There are the Crenver and Wheal Abraham Mines, in Crowan, commenced about three years ago by a limited company, with a partially paid-up capital, as has been the case with many such companies. After having expended between 50,000*l.* and 60,000*l.* in the best possible machinery, for the effectual development of the lodes, they have been obliged to stop short of any trial, from want of funds. The consequence is that all the valuable plant and the mining grants are now for sale in the Vice-Warden's Court. On the mine there are three pumping-engines, of 90, 80, and 70-in. cylinders respectively; three winding-engines, of 30, 30, and 26-in. cylinders respectively; and other smaller engines, in the most perfect condition, and now kept at work by the Vice-Warden, in the belief that a mine recommended as this has been by the best miners in the county, and with such plant, purchasable at a comparatively low figure, will be taken by some party who can employ a little additional capital in operating on the lodes. Considering the high character given of the mine and the other circumstances, it is really a pity that the present opportunity should be missed of testing at deeper levels the lode which produced to the old company in copper alone about a million sterling, the tin being then almost disregarded. There are other lodes, parallel to the main lode, not tried at all. I am not too sanguine in mining matters, but this is an opportunity for mining which appears to me so peculiarly eligible that I should be really sorry to see the machinery removed before its application to the purpose intended.—*Truro*, Aug. 6. R. SIMONS.

THE SLATE TRADE IN NORTH WALES—No. II.

SIR.—Referring to the subject of "failure," mentioned in my letter published in the Journal of July 27, on some "so-called" slate properties, I would observe that the greater the improbability of success the more readily have capitalists provided the funds recommended for developing and carrying on the work. In the past, this strange system of misapplying capital has received support from gentlemen whose stake in the adventure would naturally have led one to suppose that their knowledge of business would have proved a sufficient safeguard against improvidence. Unfortunately for them, that which might have been turned to better account has fallen a prey to the intriguing artifices of the unsuspecting schemers. It is a very common thing to see defective and the most unwarrantable properties taken up, for the purpose of realising capital on the sale thereof; whilst others of unquestionable merit are often kept in the background, for want of a more liberal outlay. The great loss and disappointment resulting from the failure of the former very naturally begets a lack of confidence amongst shareholders interested in the latter, especially when the first representations have not been realised. These last properties are often bought by a second party at one-fourth of their value; therefore, the loss occasioned to the first shareholders is very considerable. This sacrifice is made in the belief that further outlay would only make matters worse. Such disaster can only be accounted for by one of two causes—either the sum stipulated for bringing the quarry into a paying state was inadequate, or the money supplied was wrongly expended: both these errors are of common occurrence. It is to be hoped, for the sake of shareholders and the slate trade generally, that the day is not far distant when a better state of things shall dawn upon this much-abused commodity.

The track of country containing the Bangor veins in the county of Carnarvonshire, and the Festiniog veins in the county of Merionethshire, is all under lease and in work, or about to be worked. There are but a few sets on the course of these veins that can be considered unworthy the attention of capitalists; many of them contain sufficient slate rock of good quality for two or more quarries. Then why should there be any failures? The answer is simple—because the capital has been used, or the greater part of it, in developing quarries where, from some freak of Nature, the beds of slate rock have been rendered wholly unprofitable. True, the returns from some of those have deservedly provoked a spirit of enterprise; but projectors, having no room left in these celebrated veins, betake themselves to some other locality, where perchance they may become possessed of a property that can in some way be turned to profitable account. Once in ten times, perhaps, one may light upon a very promising and, in fact, really good vein of slate rock, wholly disconnected from the large seams before named; such cases are, however, not only rare, but when they do occur their range is often very limited.

Great judgment and a general acquaintance only are, consequently, indispensable in selecting the proper ground to be wrought upon, and in conducting the enterprise through the various changes appertaining to this fragmentary deposit. It is to be regretted that slate quarries of incalculable value should be suspended, and the owners ruined, in consequence of the cunning and persuasive device of some inflated

pretender. It is surprising to see stated in some reports the *actual* value of certain slate properties, when it is next to impossible to give even an *approximate estimate*. In this way a property really worth hundreds of thousands of pounds, in a commercial point of view, is often put down at 50,000*l.* or 60,000*l.*

The *real value* of any slate property can only be ascertained by the amount of capital appropriated for its development, and the skill brought to bear on the arrangements and direction of the works, so that slate-making may be commenced, and with propriety, at the earliest possible stage of the operations. The quarry, if a good one, can be made to produce marketable slate from some gallery or galleries by the end of the first year from the time that "untopping," or "roofing-up," is commenced; therefore, instead of spending 20,000*l.* or 30,000*l.* and upwards in clearing top, driving levels, and roofing-up chambers, &c., and much of it in ground that cannot be converted for years to come, one-half of this amount should suffice for preparations, and the returns from galleries in work be applied for further extensions. Should the results during the primary operations meet the expectations of the manager, and he can show from the yield of slates that a further outlay of 5000*l.*, more or less, would be rewarded by a proportional increase in the returns, it would, undoubtedly, be forthcoming. The bank is often drained of funds before any return is made to encourage the payment of further calls, which state of things ought not to be. I do not hesitate to say that the merits or demerits of any quarry property in North Wales can be tested for less than 2000*l.*, and in eight cases out of ten for less than 1000*l.*

Tremadoc, Aug. 7.

JOSEPH KELLOW.

THE PANIC IN DON PEDRO MINING SHARES.

SIR.—Allow me to make a few common-sense observations on this matter. This panic was caused doubtlessly by the report of Captain Treloar, which says—

"That at Maquina fissures and joints have disordered the vein, and destroyed—I hope only for the present—the shoot of gold, which has afforded such satisfactory returns. We followed it for some time, in the hope that the gold would re-appear, but it has not done so, and as we were working under very great disadvantages for want of a communication to Alice's level, it was advisable to suspend operations."

Now, Sir, allowing the above adverse report to have all the force and weight possible, I ask does it so materially affect the *real value* of the mine as to reduce the shares from 4*l.* to 1 prem.? Can the shareholders have forgotten the speech of their worthy Chairman—whose judgment in such matters none will impugn—as reported in the *Mining Journal* of June 1, where he says—

"The present riches of Maquina were considered as a mere bagatelle, as compared with the results that would be realised as the exploration was extended into the mountain towards the spur, and that opinion was substantiated by the extraordinary rich specimens of *veinstuff* now on the table, which, to his idea, had been inappropriately termed nuggets."

Thus, in the estimation of the worthy Chairman, if the present riches at Maquina entirely cease, the *veinstuff* in the "spur" will yield a far more abundant supply of gold than has hitherto been discovered, and this abundant supply will not be obtained from bunches of ore, but from *veinstuff*, and will, therefore, be constant and enduring. I believe, Sir, many will rue the day when they parted with their valuable shares at the low prices occasioned by this senseless panic.

ANTI-PANIC.

CHONTALES MINING COMPANY.

SIR.—Being interested in the success of this mine, it has occurred to me that the information published officially has been very disconnected, and we occasionally find out something which appears to have been suppressed a length of time. There has never been a clear explanation of how the Javali Mine passed into other hands, nor how it happens that the gold returns are valued or sold at 3*l.* per oz. *exactly*, when the St. John del Rey and others get 1*l.* 5*l.*, more, which, I think, would pay the cost of reduction. Again, how is it that the old mine were capable of yielding 700 ozs. of gold (*promised*) per month, and now, with new machinery, 400 ozs. are only *promised*? It is quite evident that unless some grand results in the way of remittances are speedily obtained the people, who hold a large number of shares, will become disheartened, and prices must further fall. I should have much preferred Capt. Paul being left unfettered in his management, as we should now have had returns from the mines sufficient to have saved the last two calls, and consequently, a smaller capital to divide profits. Similar large expenditure at Santa Barbara was made, and all through the year was too poor to give any profit; consequently, the mine was abandoned. When labour offered freely at Chontales the tariff was reduced, and, as a result, they find they are short of hands at the very time labour is most needed. No doubt the mines are valuable, but the best ore should now be treated, and the poorer ores when the new machinery is more complete and the water-power greater.

A SHAREHOLDER.

THE AUSTRALIAN MINING COMPANY.

SIR.—The revelations concerning this company, published in your *Journal* of July 27, were confirmed at the annual meeting on the 29th. The only correction needed is that the property was set up for sale by Messrs. Collier, not in Adelaide but in London. The Chairman of the company, Col. Palmer, eluded the credit of having prevented a sacrifice of the corporate property, then imminent. At the meeting on the 29th much excitement prevailed, because of expedients resorted to by Messrs. Collier (brothers and co-partners) in seeking to procure the election of both as directors, under circumstances which could subject the fate and properties of the concern to their unbalanced control. (Three being a quorum, and that being the usual attendance, two would be a majority.) After the election of one of the Messrs. Collier had been allowed to pass without opposition, and as a matter of compromise, the proposal was made to fill up the remaining vacancy at the board with his brother and partner. The motion was made by Mr. Walter C. Venning, to whom Mr. Collier had, just before the meeting, transferred two of his own shares—his sole qualification. Demonstrations in support of this nomination were made from the back benches by sundry junior Vennings, fagged in like manner with a single share apiece, and recruited, as it would seem, by other strangers—persons not recognised by the doorkeeper.

In respect to proxies, also, it was shown that none had been lodged in favour of my candidature for the directorship; for the secretary had given me an assurance, up to the latest moment, that none were lodged for anybody; whereas that assurance had been intended to mislead, as he was obliged to confess in face of the meeting. Another candidate was Mr. Trenow—a gentleman whose own name had been published in the directors' report as an eligible candidate, although Mr. Trenow had ceased to hold shares since 1865! Mr. Legg was also proposed; he had, up to 1866, advocated persistence in mining by the company, and he is still concerned in the Worthing (South Australian) Mining Company.

I, the only other candidate, was proposed by Mr. Thomas Price (holder of 200 shares), seconded by Mr. Deputy White, and advocated in speeches by Messrs. Keeling, Field, and other shareholders of consideration. I had been earliest in the field, favoured by my lamented predecessor. My services during some years as auditor had established the claim by prescription whereby the existing directors had in turn mounted to the board. My aptitude for the post, on the score of experience and standing, has been admitted. I had held shares from the origin of the company, fought in the van for reconstituting its policy, and acquired the status of being now by far the largest shareholder in the company—holding some 1100 shares out of 18,300, a stake about equivalent to that held by the three acting directors and my two competitors all put together.

Disgusted by the artifices resorted to in order to circumvent me, I expressed a desire to withdraw from the contest—the hands held up having been declared for Mr. Legg, 9; for Mr. Franklin, 14 (together 23); and for Mr. F. Collier, curiously, just 23. Mr. Legg, however, declined to withdraw, and our mutual supporters thereupon combined to require another election after three weeks interval, under the peculiar provisions of the charter. The Chairman fixed Tuesday, Aug. 20, and it remains still to be seen what expedients may be resorted to in seeking to accomplish, despite the shareholders at large, the forgone conclusion which the Messrs. Collier have so persistently striven for. If shareholders, however, vote in person, and thereby, as customary, revoke proxies given in ignorance, none can complain. The advocates of independent elements in the administration ask what can be the unwavering design of the Collier family which dictates their hostility to my succession to the vacant office, conformably to precedent and sound policy? That policy being—To exempt existing shareholders from all obligation to pay further calls; to become virtually a company for the enjoyment of rents and royalties only; to simplify the present complicated mechanism of the company; to supervise more efficiently the office routine; and to render information of progress and discovery equally available to all concerned. The scheme to fix the liability at 8*l.* per share is to leave liability for 12*l.* 6*d.* extra.

London Institution, Finsbury-circus, Aug. 2.

J. A. FRANKLIN.

POSTSCRIPT.—Aug. 5: I leave it to your discretion to withdraw my unpublished letter, dated Aug. 2, unless, in the common interest of joint-stock administration, you decree the *exposé* fitted to point a moral. I have since learned that it is now too late to take the sense of the shareholders at large on my election to fill the present vacancy—for that, on the 20th instant, neither votes nor proxies will be allowed on my behalf. Resistance to this would only involve the company in litigation, and needlessly embitter that conflict with the Messrs. Collier, which, as representing the common interest against a family one, I may be called upon soon to resume.—J. A. F.

GLASGOW CARADON CONSOLS.

SIR.—It is worth while to call attention to the discovery made in Glasgow Caradon this week, which nearly doubles the value of the mine. The south lode of East Caradon has been cut into 2 feet, and is reported worth 10*l.* to 12*l.* per fm., so far as seen at the cross-course; there is good reason to hope that it may improve as the level is driven from the cross-course. It is on this lode in East Caradon that the best ore is got, and their lode has done great things for them. In Glasgow Caradon the lode is whole throughout the mine, and as it underlies north, it can be cut again in a short time by a cross-cut from the 78. I consider that this discovery if it holds, which there is every reason to expect, from the nature of the ground and the success in East Caradon, opens up a new mine. A cross-cut will be soon put out north in the 78 to cut another lode (McClure's), with every prospect of success. The present condition of the mine is little known, and it would take me more time than the limits of such a note as this would permit of to explain it fully, but I may say that in the 68 fm. level from the shaft cross-cut to East Caradon boundary, 95 fathoms in length, there is an unbroken course of ore, worth from 8*l.* to 30*l.* per fm. The returns from the counter alone

In a very short time will be increased so as to meet costs, and make profits over the present cost, irrespective of the returns that may be expected from the new south lode and other lodes. The mine should be inspected. I am personally known to you, and enclose my card.—Aug. 8.

DRAKE WALLS—WEST DRAKE WALLS—PRINCE OF WALES.

SIR.—I have just had my attention called to some remarks in a former Journal as to the prospects of Drake Walls. You are aware I but seldom reply to anonymous correspondents. This class of men, as they consult no one's interest but their own, their actions will not bear the light; besides, they are generally abusive, and known to be public nuisances—they, like drowning men, blow bubbles as their last effort. I should not have replied to "Shareholder" but to inform him that I am about to publish a pamphlet, showing the prospects and value of 100 mines, for the guidance of those who are inclined to speculate in them. I will sell "Shareholder" one cheap, in which he will find DRAKE WALLS is shown to have engulfed over 150,000 of a needy public's money, and again baiting their line with a bubble fly, in hopes of catching more.

WEST DRAKE WALLS: prospect on Prince of Wales lode. I think the man who knows where to find the Prince of Wales lode in that set must be possessed of more philosophical knowledge than Sir Isaac Newton. I venture to give the public a hint—that the lode is not even in that set, neither do I believe it is in West Prince of Wales set. There is a something respecting this lode kept in the background. From what I know of the copper lode, I believe it to be a counter, and will never run into either of the before-named mines. The lode I believe to be misunderstood by every inspector; they suppose *Mathew's* lode, I should not go into the West Drake Walls set, or the West Prince of Wales set; I should go below Honeycomb Lane end, and at Seven Stones, to look for it. I have no doubt but a short bunch of copper will be found at these junctions, but it will ultimately become contaminated with arsenical mud. Arthur and Edward need not be used as a reference for this mine. Let them take East Harrowbear, only a few fathoms south; a finer lode shale was not to be seen anywhere. What did it turn out? Thus, take Old Harrowbear, also within a few minutes walk, from which ten times more ore was raised than has ever been raised from the Prince of Wales, and what did it turn out in depth? These mines are surely guides. I do not hesitate to say that every copper mine in the district which is in killas rock goes into arsenical mud, sprinkled with copper. I know the district, and I ask "Shareholder" not to blow his bubbles so fast. Let him quietly wait the result, and then let him cast off that mean mark, and I will meet him, if he is not too much contaminated. There is not a mine in the district that ever paid outlay and interest.

Deptford, Aug. 7.

NORTH WHEEL CROFTY, AND ITS ACCIDENTS.

SIR.—As a shareholder in this mine, I would like to ask, through the Journal, if the following report is correct:—1. That the accident which involved such heavy expense on the company, the breaking of the piston, cylinder, &c., might have been avoided, had the pitman been ordered to remove the piece of de- cayed main-rod, which was the cause?—2. Is it true that the cause of the breaking of the stamps-axe was the falling of the heavy stampers upon the axle instead of the stuff? Neglect somewhere.—3. Is it true that the fearful costly smash of last week was from want of care in selecting a suitable engine-man? I have a long list of accidents before me which have occurred within a few weeks in the mine. It has been said that "25 per cent. of the cost incurred in working this mine" is to be attributed to neglect. The agents are well paid, and I hope they will do their best to prevent such unusual costly occurrences in future.

A SUBSCRIBER.

THE IRON-MAKING DISTRICTS OF GREAT BRITAIN.

"If the theorists who are bent upon confining industries within their rigid systems, and insist upon making enterprise walk in shoes of their providing, had their way absolutely for an hour, the manufactures of England would come to a standstill in two generations." This is the assertion of Mr. CREED, found in the preface of the book, other contents of which we have noticed in the article "Legislation upon the Iron Trade." They think, do many of these theorists, Mr. CREED intimates, that young people should be the property of masters and inspectors of Government schools, up to 16 or 18 years of age, with a view to filling them with scholastic instruction, which they loosely and wrongly describe as education. If these young people had, like the sons of noblemen and gentlemen, to win their daily bread by the use of their scholastic instruction, then it would, Mr. CREED admits, be well that they should be so taught; but, he affirms, "for one-half of the instruction that is indispensable to their success as men the boys are dependent upon the manufacturers, out of whose hands it is proposed to take them." He then goes on to show that it is "in their great establishments, in mills and forges, with iron-workers, that the boys of Staffordshire, of Wales, and of those large districts of the North, to which the Reform Bill is to give new representatives must seek the knowledge by which 9-10ths of them are to win their way upward to comfort and independence. They can find it nowhere else. It is neither within the province nor within the power of a Government to afford it." These facts have had too little weight in the minds of the Executive, and of the Commissioners, and they are likely to have been so, for they appear to have been almost disregarded by the assistant commissioners, upon whose collected "evidence" and report commissioners generally base their recommendations to Parliament, and Parliament in turn act.

As a deduction from an unprejudiced examination of the third report of the Children's Employment Commission, Mr. CREED asserts that these assistant commissioners—"departmental employees," he terms them—go forth "not to discover the whole truth, but to bring home a justification for a foregone conclusion; not to get facts, but to find a stick to beat a dog." He quotes amusing instances of questions and answers, which he says are more conclusive upon the incapacity of the interrogator than the ignorance of the young person under examination. One boy, living in the Black Country, and 11 years old, is set down as unable to tell how many pence there are in a shilling, and to be equally unable to describe a robin. Mr. CREED says, "If the assistant commissioner instead of asking his victim-boy about robin red-breasts had questioned him about carrier pigeons he would have got an admirable answer, from which he might himself have learnt something, simply because there are no robins in the Black Country, and any number of carrier pigeons." Our assistant commissioner should understand the people whom he is judging. If the assistant commissioner, who has put on record the ignorance of the Black Country boy in question, had understood the people of the district named, Mr. CREED asserts that he would have so put his questions that he would have not only secured an answer which would have been creditable to the boy in respect of his knowledge of natural history, but also with reference to the extent of his information of the pence value of a shilling. He asserts that the boy knew perfectly well what that value was, and that the ignorance was with the "learned official" who questioned. If he had got the man who employed the boy, or even the master himself, to put the question, he asserts that the result would have been different. A prompt answer, correct to the fraction, he asserts would have been got if the boy had been questioned thus: "I say, Laad, here's a schellin, thee go to the Fightin' Cocks, and get a pint and a half o' six stout; does know what col't have to bring back?" We should not give so much prominence to this portion of Mr. CREED's remarks if it were not the fact that upon the reports which are based upon such enquiries legislation of vast importance to the trading classes of this country is based. We have long felt that "very erroneous ideas of the working men and their families are created by sending enquirers among them who have no comprehension of their habits of thought or modes of expression." The reports of such men are "untruthful, not because they are themselves untruthful, but because they have not themselves perceived the truth." The fault, however, is not with them, but with those who sent them forth. It is the mode which is now adopted that calls for censure, and not the unquestionably able men who are sent out.

When a commission is adopted, the task of enquiry should not be delegated to an assistant commissioner, but the "ostensible and responsible commission ought to examine and see for itself, so that seeing clearly it may perceive truly, and act rationally. It ought to proceed bodily to each centre or district which its enquiry concerns, and there in open court gather, not chance materials, but evidence for consideration and report." Mr. CREED took so practical a method to demonstrate the accuracy of this view, that what he says upon the point is well worth quoting at length. He says:—

"The writer of this preface had frequent discussions upon these questions, and especially upon the reports of the Children's Employment Commissioners, and the character of the legislative action suggested in those reports, with a gentleman connected with the Government. He found that this gentleman, having had no opportunity of deriving any information from any other source, had never dreamed of questioning the premises on which the conclusions of the Commissioners were founded, and had, therefore, concurred with the Commissioners' recommendations,—these recommendations being, in fact, the natural deduction

from the facts which the Commissioners set forth. Knowing, by experience, the difference between looking with the eyes of other people, and seeing with one's own, the writer induced him to accompany him in a visit to the Black Country. In his stay in South Staffordshire this gentleman visited various works at schools, and freely questioned the men, women, and children employed in them. He returned, after seeing men who had owned to upwards of 40 years of work as man and boy still hale and hearty, convinced that a puddler's life does not tend to emaciation and premature decay,—convinced that the orderly conduct, robust health, and decent language of the women, whom he saw and conversed with, proved that there was neither socially, physically, or morally any reason why the Legislature should prohibit these poor creatures from obtaining their livelihood by working in a factory,—convinced that the healthy boys whom he saw staying in the factory to play after their turn had ended could not be injured by their work as staff carriers. There seemed to him, also, to be some reason for apprehension that our system of school instruction, when carried out to the extent which it has been lately the fashion to encourage, tends to divert to other professions the lads whom it is the true policy of the country to educate to replace their fathers in the mills and forges. The men whom he conversed with, whose children were at school, almost always expressed their intention of finding for their sons some light work, instead of taking them to the works. They seemed to regard them as scholars too well instructed for a furnace life, and with an utterly false apprehension of their son's true interest, and to the ruin of the country, they preferred them to become clerks at 18s. a week, to puddlers at 28s. He had seen the very same things and the very same people that the assistant commissioners saw, but he looked at them from a different point of view."

The iron trade are under obligations to Mr. CREED and Mr. WILLIAMS for what they have done on their behalf; and it will be the fault of the trade if they do not profit by the labours of those gentlemen in all future domestic legislation affecting the important national industry to which they belong.

Meetings of Mining Companies.

GREAT NORTH DOWNS MINING COMPANY.

The quarterly general meeting of shareholders was held at the company's office, Austinfriars, on Thursday.

Mr. PINNER in the chair.

Mr. E. KING (the secretary) having read the minutes of the last meeting, together with the statement of accounts, they were received and confirmed.—The agents' report was read, as follows:—

Aug. 7.—Since your last general meeting our principal underground operations have been the opening out of the mine in depth. With this object in view, the sinking of Sleggan's shaft below the 70 has been urged on by 12 men, and Vivian's, Butler's, and King's shafts by six men in each. Three shafts are being sunk on the course of the lode. The distance from King's, near the Wheel Road boundary, to Vivian's engine-shaft west is some 400 fms. The former (King's) is sunk 6 fms. 3 ft. 3 in. below the 86. The first few fathoms the lode was profitably productive, but in the bottom it is not so good, and the sinking suspended, on account of the water, which will be drained off as we deepen our shaft, or Sleggan's shaft. The 86, west of King's, is driven 18 fms. 1 ft. 6 in., through a lode worth 16 lbs. 6 oz. to 157 per fathom, and we are now stopping the back of this level, where it is worth 101 per fathom. Sleggan's shaft, 60 fms. west of King's, is sunk some 8 ft. below the 86. In sinking this shaft below the 70 the lode was worth full 501 per fathom, until it became disordered by a small slide a few fathoms above the 86, but we are pleased to state that at the very deepest point yet sunk it is improving again; now worth 351 per fathom for the length of the shaft—14 fms. The men are now engaged cutting ground for the trip-plat below the 86, which we hope to complete in a few days, when the sinking of the shaft will be urged on without delay. The 86, east of Sleggan's shaft, is driven 10 fms., through ground worth 121 per fathom, the present end being of about the same value. The 86 west is extended 32 fms., through a lode varying in value from 131 to 401 per fathom; the present end is worth 231 per fathom, and ground easy for working. A winze in bottom of the 70, 30 fms. further west than the present 86 end, is sunk 10 fms.; the lode in this winze is worth 201 per fathom; we may, therefore, reasonably expect the 86 west will open out a valuable run of ore ground. The 70 is driven west of Sleggan's 93 fathoms, chiefly through ore level; the end at present is worth 61 per fathom. Two stops in back of this level, a few fathoms behind the end, are worth 101 and 121 per fms., respectively. The lode in the bottom of the level is worth 151 per fathom for a great many fathoms in length, which will be made available as soon as the 86 is driven under it. Butler's shaft, which is 136 fms. west of Sleggan's, was sunk in the future development of the mine. The sinking of Butler's shaft below the 86, but, thinking this was not the main ore-bearing portion of the lode, we were induced to put out a cross-cut through it some 35 ft., and intersected the south part, which confirmed our previous opinion. We have extended the 60 east 18 fms. on the south part, through tribute road; the lode in the present end is poor, owing to the influence of a small cross-course. Our main object in urging on this end is to effect a communication with the driving west from Sleggan's, which will give first-rate ventilation, and be of great advantage in the future development of the mine. The sinking of Butler's shaft below the 86, on the south part of the lode, is being urged on by six men as fast as possible; this shaft is worth 151 per fathom. If the ground continues favourable we shall, in a month's time, set off a 70 fm. level east and west from this shaft, which, we think, will open profitable ground. The prospects at Butler's are most cheering, and we consider it a very important and favourable feature in the mine. There is nothing very new to report on at Vivian's engine-shaft; we are continuing the sinking as rapidly as possible. The mine is now in good working order; within the past 21 months we have cut down Sleggan's shaft, and sunk the same to the 86. Also sunk King's, Butler's, and Vivian's, and opened out levels in the bottom of the mine, laid down tramways underground, and at surface fixed 18-in. pitwork, and put up a first-rate pumping-engine, a 24-in. winding-engine, with powerful steam-capsman attached. We shall not require any new machinery, as we have an 80 and 70-in. pumping-engines, two steam-whims, and capstans. Our pumping-engines are only going three strokes per minute to keep the water, and we can easily work eight strokes per minute; we have, therefore, ample pumping-power in reserve. We shall be able to sell larger quantities in future, if the 86 west prove as good as we expect. In the meantime we shall urge on Sleggan's shaft, to open out the lode at a deeper level as quickly as possible. The corresponding sale of copper ore last year against this 300 tons was 110 tons, which realised less than 31 per ton. We think that the ores we now have from the bottom of the mine will bring double that price per ton, which proves that the lode is not only becoming more productive in depth, but that the ores are of better quality.—W. RICH; C. BAWDEN.

The accounts showed a debit balance of 496l. 12s. 7d.

The SECRETARY having explained the present position of the workings by the section, stated it would be seen by the report of the manager that the mine was now in a profitable position, and rapidly increasing the reserves. The course of ore discovered from King's to Butler's was nearly 200 fathoms long, and every fathom driven in the 86 gave 16 fathoms of backs. The average price of the ore was 50s. per ton, and the 86 west was driving at 85s. per fathom, in a valuable course of ore.

Mr. R. McALLAN was certainly not prepared to find the prospects of the mine so flattering. Was he to understand the 300 tons of ore for sale to be the returns for June and July; and if so what was the produce of the ore, and would it leave a profit on the two months' working?

The SECRETARY stated it was the returns for two months, and the greater portion gave a produce over 10; and he trusted with the tin sales would give a sufficient profit to pay the debt of 496l.

A SHAREHOLDER was glad to learn from the manager that they had such a large amount of pumping-power in reserve.

The CHAIRMAN stated they would see by the report they had two large pumping-engines on the mine, one 70 and the other 80-inch cylinder, and each only working three strokes per minute, yet they might be called on to render some assistance to the neighbouring mines, and he thought it only right the adventurers should give the committee power to enter into any arrangement they might consider beneficial in respect of the water charges.

The CHAIRMAN stated the committee had been empowered to adopt any additional means which may become necessary for maintaining the effectual drainage of these mines, and securing the uninterrupted development of the set.

The committee were re-elected, and a vote of thanks to the Chairman terminated the proceedings.

GREAT SOUTH CHIVERTON MINING COMPANY.

A general meeting of shareholders was held at the account-house on the mine, on Saturday, July 27.

Mr. HENRY MILFORD in the chair.

Mr. H. CHAPMAN (the secretary) having read the notice convening the meeting, a statement of accounts for three months, ending May, 1867, showing a debit balance of 314l. 10s., was received and adopted, as also the agent's report.

The CHAIRMAN said that he was pleased to see so many shareholders represented at this meeting, and, from his experience of mining, he thought it was for the benefit of all parties concerned that they should come and see for themselves. He felt satisfied with what he had seen this morning, and great credit was due to the manager and agent for the way in which the operations had been carried on since his last visit to the mine. The prospects appear to be highly satisfactory, and, from the specimens on the table, there was every reason to anticipate a good paying lode in depth. The accounts had been carefully examined by the committee, and he should propose that they should be received and adopted, as also the agent's report.—Having been seconded, it was carried unanimously.

Mr. LELAND wished to testify his approval of the manner in which the mine had been worked, and he felt convinced that by a little more patience a valuable mine would be opened up. Not only had they the advantage of being surrounded by the leading mines of the district, but they had strong evidences in their own ground of its being a valuable property. The lodes are improving as they get deeper, and, in a few fathoms further sinking, there is every reason to expect great success.—Mr. CHAPMAN felt great pleasure in being able to congratulate the shareholders on the very favourable indications presented for producing lead at a shallow depth. The lode in the winze sinking below the 20 appears to be rapidly improving, and the strong leader of copper and lead now in the bottom cannot fail to prove a rich lode. It is the opinion of those who have seen it that it is the top of a valuable bunch of lead. The stratum is of the same nature as in the West Chiverton Mine, and the lodes, having the same underlie must be regarded as a very important feature. No doubt existed in the minds of practical authorities as to the ultimate result of this mine, and by persevering a few months longer the shareholders will, without a doubt, be amply repaid for their outlay. Everything appeared to be carried on with judgment and economy. Mr. JOHN H. REYNOLDS (one of the lords) said that, from what he knew of the district for many years past, he thought that if there was a valuable piece of mineral ground in the district it was the Great South Chiverton, and he felt

persuaded that by a little more outlay and perseverance the same success would be realised as in the neighbouring mine. His knowledge of mining operations convinced him that all the money that had been expended on the mine had been done with the greatest regard to economy, but at the same time executed in the best possible manner. The shareholders may rely upon his doing all in his power to forward their interests. He felt great pleasure in meeting so many shareholders, and could only wish them every success.

Mr. CARPENTER could not but express his entire satisfaction with everything that he had seen and heard that day. As an individual shareholder with everything that there was something beyond a mere speculation in this mine. He felt connected with it for a long time, feeling assured that some day it would repay him for his outlay, and when he saw that the prospects improved as they got deeper, it confirmed the previous opinions that had been expressed as to the value of the property. The various operations, which must necessarily be left to the judgment of the manager and agent, appear to be carried on to the best advantage, and his opinion was unaltered as to its proving a great prize, and he hoped and believed that the time was not far distant when he would meet the shareholders to congratulate them on their success.

A SHAREHOLDER wished to know how far the shaft was sunk from the surface, and the lode now in the bottom is 7 ft. wide, and in every way likely to make lead in depth. There had been eight lodes discovered running parallel to the West Chiverton.

The CHAIRMAN said the next question was the amount of call required to meet the current expenses for the next three months. From the estimate of the manager, it appeared that 2s. 6d. per share would meet the case, and he proposed that a call of this amount be made forthwith, which was seconded, and agreed to.

Mr. CARPENTER wished to propose one resolution, which he knew would receive the cordial approval of all present. It was that a vote of thanks be given to the manager, agent, and secretary for the satisfactory manner in which all the various operations of the mine had been conducted. Everything depended upon the management of a company, and when they get the right man, it is the duty of the shareholders to acknowledge their services.—The SHAREHOLDER having seconded the resolution, it was carried unanimously. Capt. NANCARROW wished to convey his sincere thanks for the expression of confidence shown to himself and Capt. George, and he could only say that everything that could be done for the benefit of the shareholders they felt great pleasure in doing, and he thought it would not be long before they were rewarded for their outlay.—Mr. CHAPMAN thanked the meeting for their kind opinions. He felt great pleasure in doing anything that was for the benefit of the company. He had been connected with the mine from the time operations were commenced, and he had always endeavoured to satisfy all parties concerned. A vote of thanks to the Chairman terminated the proceedings, and the meeting separated.

DE LERY GOLD MINING COMPANY.

The subjoined is the report of Mr. J. M. WINCHELL, the general manager, mentioned in connection with the proceedings at the annual general meeting of the company in last week's Journal; and a synopsis of that of Prof. HIND, to which reference was also made:—

GENERAL MANAGER'S STATEMENT.

The official duties of the undersigned, as general manager, commenced on the 2d of last January. The remainder of that month was employed in preliminary work necessary to determine the best practical policy to be pursued. In the month of February, the American directors increased the subscribed stock of the company in the United States about \$100,000; and in March, through the diligent efforts of the Quebec directors, additional subscriptions were made in Canada to the extent of \$140,000 more. In April, the directors in Canada, and transferring to the office here all books, records, and vouchers. During this month also I engaged Prof. H. Y. Hind, of Nova Scotia, to make a geological survey of the north-east quarter of the Selkirk during the month of June. The weather and the condition of the roads prevented the prosecution of outside work on the property during this month and a large portion of the next. In May, however, the office in Quebec was completely organised, the mill finished and made ready for work, and a quantity of rough material was sent to the mill. On the first day of June, at 7 o'clock in the morning, the whistle of the mill sounded, and the stamps commenced work, which has been regularly continued to the present time. On the same day Prof. Hind reached the Selkirk; and the report of his survey, which I herewith transmit, proves the industry, fidelity, and intelligence with which his labour has been performed. During that month it was my constant effort to procure as many practical tests as possible, by working mill process, of the character of our quartz rock. Some half-dozen lots, from 2 to 20 tons each from different ledges, were crushed, and the results of the simplest process; in every case yielding more or less than the mechanical value deposited in the Quebec office, and in several instances giving evidences of decided value. As this rock, with one exception, was taken from the surface, I regard the results as remarkable, and more encouraging than we had any right to expect from a trial of this nature. By this severe process, exercised on raw material—unselected, and generally intractable from the presence of sulphur, arsenic, and iron in large quantities—the actual result is necessarily made as unfavourable as possible. After crushing the rocks, models of the different lots were deposited in the Quebec office, and in several instances giving evidences of decided value. As this rock, with one exception, was taken from the surface, I regard the results as remarkable, and more encouraging than we had any right to expect from a trial of this nature. By this severe process, exercised on raw material—unselected, and generally intractable from the presence of sulphur, arsenic, and iron in large quantities—the actual result is necessarily made as unfavourable as possible. 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A CERTAIN CURE for CHOLERA, spasmodic symptoms, and internal complaints, when unadulterated; but how seldom to be met with in its pure state, unless from the direct Importers, C. DEVEREUX and Co., 26, EAST INDIA CHAMBERS, LEADENHALL STREET, LONDON, at 3s., and for "première qualité," 4s. per dozen, either pale or brown, bottles and case included. Forwarded same day against Post-office order or remittance.

BRITISH MINES.

EAST DABREN.—Aug. 6: Taylor's Shaft: In the 116 east the ground is still soft and broken up, and the lode unproductive. In the 104 east the lode is about 1 yard wide, producing 1½ tons of ore per fathom. In the 92 east the lode is from 8 to 9 feet wide, yielding, on the average, for the lode, 2½ tons of ore per fathom. In the 80 west of boundary, the lode is 2 feet wide, yielding 1½ tons of ore per fathom, and the ground hard for exploring. In the rise over the back of the hills, about 45 fathoms east of Taylor's shaft, the lode has much improved, now yielding 1½ tons of lead ore per fathom. In the 80 east the lode is large, and is covered by broken-up ground—unproductive. In the 68 east the lode is from 2 to 4 feet, producing a little lead ore. The pitches throughout the different levels still continue to look well, yielding their usual quantities of lead ore. We have set the new engine-shaft to sink at Blaen Cwm, to be carried down 10 ft. long by 6 feet wide. We have also put two men to prepare for driving a cross-cut north at the eastern end of the embankment of the new pond.

to sample another 40-50 tons of ore. GREAT RETAILLACK.—G. R. Odgers, Aug. 3; Setting Report: The No. 1 shaft is 4 fms. below the 9 fm. level, the men having previously taken 11 fms. of it. They are now sinking to the 20 fm. level, and will sink to the 30 fm. level, and the lode ends, I hope, by the end of this month. The No. 2 shaft to sink to the 30 fm. level, by eight men, at 150s. per fathom; to be paid 10s. for fixing elstern and plunger lift, and bringing down the main rods, and 10s. per fathom for dividing and casing; whilst they are sinking for the No. 3 shaft, the men will drive the 20 fm. shaft to the 40 fms. per fms. there is a promising lode, and where we are expecting a speedy improve-

athom; driving in a splendid channel of gradient 1:10. This cross-cut we hope to communicate to the flat-rod shaft in the course of a very little time. The flat-rod shaft is sinking below the surface, by six m. 30, 40, 100, per fathom, and we have to sink it deeper in order to reach the ore, which we must have to cross-cut south about 2 fathoms to see the new south lode, which I hope when cut will be productive. I should also recommend sending off a cargo of iron ore by way of sample, which would be a guide to the nature of the ore. The lode is large, and highly mineralised, and with a small

shaft, is still retaining its size; it is in appearance very promising, producing good stones of ore, but not sufficient to value. In the 210 north the lode is 1½ ft. wide, south 4 ft. per fathom. In the 200 north it is 4 ft. wide, south 10 ft. per fathom. In the 200 north it is 1½ ft. wide, south 4 ft. per fathom. In the same level south it is 3 ft. wide, south 10 ft. per fathom. In the 190 north it is 2 ft. wide, south 9 ft. per fathom. In the same level south it is 2 ft. wide, south 7 ft. per fathom. In the 180 north it is 3 ft. wide, south 10 ft. per fathom. In the same level, south of the slide, we have still a large canal, letting out water, and looking promising. The stopes and pitches are producing much as usual.

WHEAL UNY.—S. Conde, M. Rogers, Aug. 3: The lode in the 130, south of engine-shaft, is worth 81 per fathom. The 130, east of engine-shaft, is worth 71 per fathom. The 100, east of engine-shaft, is worth 71 per fathom. The 130, east of incline-shaft, is worth 81, per fathom. The 130, west of incline-shaft, is worth 10 ft. per fathom. The 120, west of incline-shaft, is worth 61, per fathom.

WHEAL SPANON.—Wm. Tregay, E. Ghegwin, Aug. 3: The lode in the shaft is 2 ft. wide, producing cap, quartz, gossan, prlan and muddle—a kindly lode; shaft not yet got below the quarry. We have been coasting further south, but have not met with any other lode.

FOREIGN MINES.

ST. JOHN DEL REY GOLD.—(July 29: Produce, second division of June, ten days, 15,868 oits.; yield, 7-745 oits. per ton.

DON PEDRO NORT DEL REY GOLD.—Capt. T. Treloar reports—Produce cleaned up amounts to 13,955 oits., and the same remaining to be treated will, I hope, make the total for the month 15,000 oits. At Maquigné fissures and joints have disordered the vein, and destroyed—I hope only for the present—the shoot of gold which has afforded such satisfactory returns. We followed it for some time, in the hope that the gold would re-appear, but it has not done so, and as we were working under very great disadvantages, for want of a communication to Alice's level, we suspended the operations. The main deposit, which was at the level of the 100, and the 130, and the 160, or line above it, has yielded better lately, but the excavation on this also is approaching the fissures and joints, which have injured the shoot below. Alice level is being pushed on by every means in our power. No discovery has yet been made in the shallow or middle levels east. Westward nothing has been done lately, because while the works on the shoot were in hand the force assigned to the western part of the mine was required eastward, but now they will be resumed. At the Mina del Lago we have reached soft talcose clay. The shallow workings of the mine are now being examined, and we are waiting.

EXTRACT.—From additional letter, dated July 2, on the subject of Maquigné:—“Early last month the shoot of Maquigné, which afforded such gratifying returns from February to May inclusive, became disordered by fissures and joints. The vein held its way through them, but the lines of gold which formed the shoot became poor. We followed them in the hope that the gold would re-appear, but it did not do so, and, as we were working under very great disadvantages for want of a communication to Alice's level, we suspended the operations. The main deposit, which was at the level of the 100, and the 130, and the 160, or line above it, has yielded better lately, but the excavation on this also is approaching the fissures and joints, which have injured the shoot below. Alice level is being pushed on by every means in our power. No discovery has yet been made in the shallow or middle levels east. Westward nothing has been done lately, because while the works on the shoot were in hand the force assigned to the western part of the mine was required eastward, but now they will be resumed. At the Mina del Lago we have reached soft talcose clay. The shallow workings of the mine are now being examined, and we are waiting.

ANGLO-BRAZILIAN GOLD.—Capt. T. Treloar reports—Both the appearance of the mine generally and the samples from the stamps indicate an amelioration in the produce for June. The depth of covers of the stamping mills has been reduced throughout, with the exception of six heads of fleshetk stamps. The work has been better, and the produce has been better. The stamps are so far the samples are decidedly in favour of the shallow cover; but this is a matter which will require some months practice and careful comparisons before it can be satisfactorily ascertained whether shallow covers are more advantageous than deep ones. The works generally are being prosecuted with vigour, and we hope shortly to touch more lode in the rise at the end of the deep adit. Works, too, south of Dawson's shaft are in progress, for getting at the bottom of old workings between Dawson's and Foster's shafts. The old workings between Dawson's and Haynes's shafts have been examined. No canals are present in them, nor any lode to which the former owners would have commenced driving an expensive adit. It is manifest, therefore, that the adit was commenced for working the lode left between Dawson's shaft and the Fundao.

ROSSA GRANDE GOLD.—Capt. B. Brokenshar reports for June—We have again suffered a little by some of the men leaving their work and by salt days, which happen to occur three times this month. I am unable to work the stamps by night until I obtain more hands. We now consider ourselves in the middle part of the dry season, and I find so far that there is more than a supply of water for the stamps, and am encouraged to hope from this fact that we shall not fall short, but have sufficient to work the whole of the heads throughout the year. The stamps have worked 19 days to the 23d of this month (June), averaging 1½ tons of gold per stamp per day. The stamps are in good order, and the stone has all been taken from the second workings, a good deal of an inferior character, which unavoidably became mixed in uncovering and taking down the hanging wall portion of the lode. The adit end has been driven eastward this month 2 fms. 2 ft., making 6 fms. from the cross-cut. The reason why so little has been driven is they have only worked there a part of the month, and have been hindered by not having sufficient hands to wheel the stuff.

PORT PHILLIP AND COLONIAL GOLD.—The directors have received, by telegram from Suez, the following advices from their resident director, Mr. Bland, at Clunes:—“Three weeks' return for June, 3400 tons of quartz crushed, yielded an average of 12 dwts. per ton. Remittance, 3800l.

RHENISH CONSOLS.—George Sweet, Aug. 1: Bliebach: The forebreat of the 10 lachter drirage west, at Christiana, is now within ¼ lachter of Sweet's winze. The lode in the end is showing a much better feature, and will yield 15 centners of lead ore per lachter; the ground is also considerably eased. The lode in Pittar's sink is fully 3 lachters wide, and the footwall is taking a more downright direction than the hanging wall, and the ore part seems to be leaning with the footwall. A stop in part being from 2 to 6 fms. from the footwall, the lode will yield fully 4 tons of lead ore per lachter. Although the shaft has been sunk through a great part of the lode which has been poor, yet it may prove that it is not yet deep enough to reach the more productive part. The stope west of Sweet's winze, in the adit level, will yield 25 centners of lead ore per lachter. A stope over the cross-cut in the 10 will yield 20 centners of lead ore per lachter. A stope to the west of Sweet's winze will yield 30 centners of lead ore per lachter. Bliebach: The drirage west, in the adit level, on the north lode, will yield 15 centners per lachter. A stope in the back of this drirage will yield 15 centners per lachter. The 10 lachter drirage, on the north lode, is yielded and contains 15 centners of lead ore. The lode is very large, and we have cross-cut both north and south, but it seems that the leading part of the lode is in the present forebreat. Directly over this end, in the adit level, the lode was very large, and spotted with lead and blende, as the 10 now is; but in further advancing the adit end west we found the lode better defined, and more productive for lead, so it is reasonable to expect an improvement in the 10 and very shortly. The stopes on the middle or south lode, at the best part being from 2 to 6 fms. from the footwall, the lode will yield fully 4 tons of lead ore per lachter. 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phalts, petroleum, naphtha, pitch, bituminous schists, and particularly in carbobutene, a substance which he describes as similar to ordinary coal, but as evolving a much greater amount of heat, for while he calculates the heat-producing power of Newcastle coal at 7400, the substance discovered by him, when subjected to various processes of which he claims to have the secret, will generate, he says, more than double this amount of heat.

CORNISH MINES, AND TICKETING EXPENSES.—For years past the heavy indirect charges payable to the smelters' servants, and others, upon every occasion of a mine sending ores to the ticketings, have been loudly complained of by adventurers—ticketing and counting expenses being, perhaps, their greatest grievances—it is, therefore gratifying to find that steps are now to be taken to provide a remedy. A meeting of managers of mines (to which all adventurers are likewise invited) has been called for August 20, "to take into consideration the question of the amalgamation of the Second and Fourth Ticketings in the month; and as well as any other matter relating to the general expenses of the Ticketings for the future." In writing to Mr. Brydges Williams upon the subject, Captain F. Pryor pointed out the desirability that all economy should be observed with regard to the sales of ore, and remarked that he "would strongly recommend to the notice of the leading copper companies the thorough abolition of all indirect modes of payment to the samplers, assayers, &c., thus placing the Cornish mines in the same position as that of those who sell at Swansea and Liverpool. It may be said it is a miner's question—so it is, but how many who grumble at the so-called abuse are afraid to openly denounce it. Without referring to old customs, but contenting ourselves with the remark that the sooner they are set aside, if prejudicial, the better; it is a simple matter of business, and that which is observed in every other line. Every employer pays his own servants, they then have an opportunity of judging of the value of their services, and remunerating them accordingly." These remarks are the more important from the fact of the writer being himself in the employ of a smelter.

EXTRAORDINARY SILVER MINING PROFITS.—Those western States of the American Union, which, from their proximity to the great ocean, are known as the Pacific States, are annually increasing their marvellous yield of the precious metals. Last year's production amounted to upwards of 21,000,000, about 7,000,000 of which was the produce of the silver mines of the State of Nevada. From official returns recently published, it appears that many of the companies working these Nevada silver mines are returning profits hitherto unparalleled in amount. The Yellow Jacket is paying at the rate of 360 per cent. per annum; the Savage, 880 per cent. per annum; and the Imperial, 780 per cent. per annum. While these are striking instances of success, they are by no means the only cases, while numerous companies are paying from 50 to 250 per cent. per annum. The country is still being vigorously explored by experienced geologists, and important discoveries are constantly being made. One of the most valuable properties in the State is that containing the nine parallel silver lodes, or veins, known as the Tallulah series, situated in Humboldt county, Nevada. The veins have been proved to be wide, and of great richness; they have been traced from the surface to a depth of nearly 200 feet, and are found to increase in richness as depth is reached. Samples of first-class ores from these lodes, assayed by Messrs. Johnson and Sons, assayers to the Bank of England, showed 1269.7 per ton; the average yield of second-class ore is about 307. per ton; while the costs of mining and extraction will not exceed 107. per ton. A large portion of these lodes have been secured by an English company, the Humboldt Silver Mining Company (Limited), now organising in London. The lodes have been examined and most favourably reported upon by high mining authorities of England and America, among others by Prof. B. Silliman, Professor of Geology at Yale College; Captain James Barratt, of London and Cornwall, mining engineer, late of the East Indian Government Mineral Survey; Prof. E. Williams, and Mr. Robert Knapp, mining engineers, all of whom agree as to the unusual merits of the property, its containing an inexhaustible supply of rich silver ore, and as to the certainty of its proving highly remunerative. No money has been, or will be, paid for the mines, as the vendors show implicit faith in the future profits of the company by taking the estimated value of the property (£30,000) in shares of the company. No promotion money will be paid, and deposits will be returned in full if no allotment is made. The bankers of the company are the London and Westminster Bank, London. Solicitors, Messrs. Kimber and Ellis, Gresham House, London. Consulting engineer, Mr. John Arthur Phillips, London. Copies of the prospectus, with reports, may be had on application to the offices of the company, 25, Poultry, London.

MINERAL RIGHTS ASSOCIATION.—In reconstituting this company, it is proposed to alter the name to the "Mining Association (Limited)," and to reduce the shares from 57. to 27. each, with 17. paid. This will meet the objection as to the heavy liability at present hanging over the shareholders, and if a larger capital is wanted hereafter for the purpose of operating more extensively, more shares can be created. In the meantime the existing unprecedented depression in the markets affords a most favourable opportunity for entering into business, which in a comparatively short time will yield very large profits. It was stated at the meeting last week that even the limited amount invested a few weeks ago showed already a profit of 18 per cent. on the aggregate sum invested. The company has also a gold mining property under consideration, the assays of quartz from which by Messrs. Johnson and Sons show the extraordinary results of an average of 4 ozs., 56 ozs., and 838 ozs. of gold per ton, besides silver. This property is stated to be situated in a district which is surrounded by many rich mines, and that machinery can be conveyed to the spot without great difficulty, while sufficient water-power is available. We have little doubt but that the Mining Association (Limited) has a long career of usefulness and success before it.

NEVADA LAND AND MINING COMPANY.—This company, to which we referred last week, is in effect a resuscitation of the Washoe Company, with the advantages of a considerably reduced capital, and the benefit of the experience gained in the management of that company, and the want of which was, we believe, a principal cause of their troubles. There are two distinct properties in Nevada belonging to the Washoe Company. One is an estate of about 1000 acres in the valley of the Truckee river, about 20 miles from the important mining town of Virginia, and on the line of the Central Pacific Railway, now rapidly approaching. Here a canal has been constructed capable of supplying water-power for several crushing-mills, and one mill, with machinery complete, has already been constructed, with which it is confidently expected that a considerable business in reducing ores may be done as soon as ever railway communication can be opened from the Truckee to the rich districts of Humboldt and Virginia City, and that even at present a profit may be made on the reduction of ores carried from Virginia, or by letting the mill to mining companies there, who would be glad to avail themselves of the cheapest of water-power. The agricultural value of the land on the Truckee is considerable, as the amount of land adapted for cultivation in the State is limited, and most of the produce consumed in Virginia is brought a great distance—from California. When the Pacific Railway reaches the Truckee a demand for building sites is also expected to arise. The other property the company will have is the Whitmore Mine, in the Humboldt district, which will, fortunately, be traversed by the Pacific Railway in its future progress. This mine is situated on what is believed to be the best part of the Sheba ledge, and very sanguine anticipations of the success of the mine have been formed from the high character of the ledge generally, the working of the mines adjoining the Whitmore, and the assays of the ores. Specimens of which have been tested in England with most favourable results. Mr. Dunne, the acting manager of the Whitmore Mine, in an interesting letter, evidently dissuading the Washoe shareholders from allowing their property to be sacrificed, writes:—

"We have a valuable property on the Truckee and in Humboldt, the most valuable part by far being in Humboldt. The Pacific Railroad is driving along as fast as 10,000 men can urge it. In 18 months, at the furthest, I shall be able to ship ore by it to the Truckee. They promise to freight it at \$10 per ton. I can get a regular supply of ore from this section, enough to run our Truckee works to their full capacity, which, with the cheap railway transportation, will yield as a real profit of at least \$15 or \$20 per ton. There is practically no limit to the amount of rock I can get of this grade, while we may safely count on very profitable returns from the rich Sheba ores from the Whitmore, whether we work the latter here or concentrate and ship to the Truckee or to Swansea. The first-class Sheba ores pay probably better to ship to Swansea than to work it in this country. . . . The shareholders have now a large and valuable property.

erty, on which they have expended an immense amount of money. No one will reimburse them at this moment for their outlay, no one can afford to do it; it is beyond all question, however, that the property is of great intrinsic value. . . . One successful year's working after the railway is open will pay the shareholders all their immense outlay for the last five years, and ensure them a princely property, or else Nevada is the worst mining region in the world."

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, AUGUST 9, 1867.

| COPPER. | £ s. d. | £ s. d. | IRON. | Per ton. |
|----------------------------|----------|---------|----------------------------------|----------|
| Best selected, p. ton | 85 | 0 0 | Bars Welsh, in London | 6 10 0 |
| Tough cake and tile | 70 | 0 0 | Ditto, to arrive | 6 10 0 |
| Sheathing & sheets | 79 | 0 0 | Nail rods | 7 0 0 |
| Bottoms | 83 | 0 0 | Staffs, in London | 7 10 0 |
| Old (Exchange) | 85 | 0 0 | Bars ditto | 7 10 0 |
| Burra Burra | 84 | 0 0 | Hoops ditto | 8 10 0 |
| Wire | 1 0 0 | 0 1 0 | Sheets, single | 9 5 0 |
| Tubes | 0 11 0 | 1 0 | Pig No. 1, in Wales | 3 15 0 |
| BRASS. | | | Refined metal, ditto | 4 0 0 |
| Per lb. | | | Bars, common ditto | 5 15 0 |
| Yellow Metal Sheet, p. lb. | 7d. | | Do. mch. Tyneor Tees | 6 10 0 |
| Sheets | 6 7/8d. | 7d. | Do., railway, in Wales | 5 10 0 |
| SPELTER. | | | Do., Swed. in London | 5 10 0 |
| Foreign on the spot | £20 15 0 | 20 17 6 | To arrive | 10 5 0 |
| " to arrive | 20 15 0 | 20 17 6 | Pig No. 1, in Clyde | 2 13 0 |
| ZINC. | | | Do. E. b. Tyneor Tees | 2 9 0 |
| In sheets | £27 0 0 | | Do. Nos. 3, 4, 5, 6, 7, 8, 9, 10 | 2 6 0 |
| TIN. | | | Railway chairs | 5 10 0 |
| English blocks | 91 0 0 | | " spikes | 0 12 0 |
| Do., bars (in barrels) | 92 0 0 | | Indian Charcoal Pigs, | |
| Do., refined | 94 0 0 | | In London p. ton | 7 0 0 |
| Banca | 92 0 0 | | STEEL. | |
| Straits | £96 0 0 | 86 10 0 | Swed., in kegs (rolled) | 14 5 0 |
| TIN-PLATE. | | | (hammered) | 15 0 0 |
| Per box. | | | Ditto, in faggots | 16 0 0 |
| IC Charcoal, 1st qua. | 1 7 6 | 1 9 6 | English, spring | 17 0 0 |
| IX Ditto, 1st quality | 1 13 6 | 1 15 6 | QUICKSILVER (p. bottle) | 6 17 0 |
| IX Ditto, 2d quality | 1 5 6 | 1 7 6 | LEAD. | |
| IX Ditto, 2d quality | 1 11 6 | 1 13 6 | English Pig, com. | 19 15 0 |
| IX Coke | 1 3 6 | 1 4 6 | Ditto, B. | 20 0 0 |
| IX Ditto | 1 9 6 | 1 10 6 | Ditto, W.B. | 21 15 0 |
| Canada plates, p. ton | 13 10 0 | | Ditto, ordinary soft | 20 0 0 |
| Ditto, at works | 12 10 0 | | Ditto, sheet | 20 10 0 |
| | | | Ditto, red lead | 20 15 0 |
| | | | Ditto, white | 20 30 0 |
| | | | Ditto, patent shot | 23 0 0 |
| | | | Spanish | 19 5 0 |

* At the works, 1s. to 1s. 6d. per box less.
† A Derbyshire quotation; not generally known in the London market.

REMARKS.—The Metal Market continues to present signs of a slow and but gradual improvement. More orders are being brought forward; though they cannot always be executed at the limits, yet their being in the market at all is a good sign, and shows that there is a rather better feeling springing up. It has also had the effect of somewhat strengthening prices, so that we may now hope that a turn in the market (for some metals, at least) has taken place, and that the unusually low prices which have been ruling for some time are now past, and that we shall have no return of them for a long time to come; and we may expect that when this state of things becomes known abroad we shall have the limits which are at present placed upon some orders extended, so that they may be executed before prices have reached a much higher figure. It is to be hoped that nothing will arise to interfere with the present easy condition of the Money Market, so that when commercial affairs have assumed a brighter appearance the facilities which are now offered for operations will be still in existence, as they will greatly aid in bringing about a more satisfactory condition in business, and in making up, in some measure, for the great inactivity which has so long prevailed. Now that the prospect is becoming a little brighter, we earnestly trust that no unforeseen circumstances may occur to retard the coming of activity and vigour in the metal trade, and that soon we may be enabled to record that the period so long looked for has at length arrived.

COPPER.—The market for this metal is rather steadier at the present low price, and the demand has somewhat improved; actual business, however, has been very limited, still there seems some prospect of a better state of things arising ere long. Indian orders are rather more numerous. Chili bars are now quoted at 68. 10s.

IRON.—In Staffordshire the orders coming in are generally small, but some of the leading makers have sufficient to keep them employed, especially for hoops and sheets. There is a want of orders for bars and plates, and, as a rule, the second-class makers are not working above three days a week. There are considerable contracts for rails in the market, which, though they will not come to Staffordshire, will help to improve the trade generally. In Welsh the buoyant feeling which had commenced to manifest itself was somewhat checked by the increased depression in the money market, but a reaction for the better has again taken place. Bars of good quality keep in tolerable request. Pigs are firm, cold-blast makes of repute meeting with ready sales. Rumours are current that very large orders for rails are about to be given out in Belgium, and if such is the case the competition of the makers of that country in other markets will, no doubt, be withdrawn for a considerable time to come, which will, of course, act in a very beneficial manner to the trade here. Exports to America keep about the same, but an increase is looked forward to in the course of the present month. A quantity of railway iron is being shipped to Russia, from which place advices are very favourable, but the monetary position of that country is not so satisfactory. In Swedish iron the demand still continues, and a fair amount of business is doing. In Scotch pig-iron a moderate amount of business has been done during the week, and the price has remained almost without fluctuation at 53s. cash.

LEAD.—The market remains quiet, but prices are still steady at the quotations.

TIN.—In foreign the market has become somewhat weaker, and business has been done at reduced prices. Small quantities of Straits have been sold at 86. 10s. cash, recently a small parcel has changed hands at 86. 10s. Banca has been sold at 92. The stock of tin in warehouse in London on July 31 was 2058 tons, against 2633 tons the same time last year; and the quantity of Straits afloat for Europe is 2043 tons, against 1416 tons same time last year. English remains without alteration.

SPELTER.—The demand for this metal is very limited, and consequently prices have become easier, the present quotation on the spot being 20. 15s. to 20. 17s. 6d.

TIN-PLATES.—A good demand still exists, the works generally are well employed, and prices remain firm.

STEEL.—A better enquiry for foreign is now presented.

QUICKSILVER.—Sales are very limited.

BIRMINGHAM, AUG. 9.—Bylands' "Iron Trade Circular" says—Pigs steady; bars and finished iron firm and improving in demand. Rails brisker, and plates flat. General trade better. Colonial orders are good.

MIDDLESBROUGH, AUG. 8.—The "Iron Trade Review" states—The pig-iron trade of Cleveland remains about stationary. The stock of iron in railway warrant stores is now 75,312 tons. Prices are unchanged. Some extensive orders have been secured by North of England firms for finished iron—chiefly rails. The Dutch contract for 10,000 tons has come to Cleveland. Plate makers are slack. There is a better tone about the malleable iron trade.

Several furnaces are being built, and several more are out of blast, but it does not appear probable that any great change will be made in respect of the number of furnaces blowing. Altogether there are about thirteen furnaces either being built or enlarged, but some of these are intended to take the place of smaller ones, which it is found impossible to work economically according to the present methods of conducting smelting operations, but a considerable portion are additional sources of production, and of the most gigantic character, two of the furnaces being upwards of 100 feet high, and 27 feet across the bores. The rate of production of pig-iron in Cleveland and the North of England district, including the hematite furnaces of Cumberland and North Lancashire, is now at the rate of 1,200,000 tons per annum, which is greater than the make of any other district in the country. It may be safely estimated that the capabilities of the district would allow the production of fully 1,250,000 tons of iron per annum. The demand for Wales and Scotland still keeps up, and a considerable number of orders have been booked for those districts. It is curious that so much of the Cleveland iron should now be going to two of the most distant and extensive iron-making localities, but such is actually the case. The manufactured iron trade is, on the whole, somewhat better, especially in the rail department, which is the principal support of the district. Of the 12,000 tons of iron which the forges and mills could produce, if fully employed, be-

tween 4000 and 5000 tons would be turned out by the rail mills. It is satisfactory to find that some extensive orders have recently come to hand. The tract for 10,000 tons of Dutch rails, which last year went half to Wales and half to Cleveland, has this year been entirely secured by a firm in the North, and other substantial orders have also been obtained by other houses. There is now a tolerably good prospect of the rail mill being fairly occupied during the winter months, when the Russian shipments are completed.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (Aug. 9) write:—The firmness evinced by Liverpool holders of Chilean produce has continued, and those buyers who had special reasons for providing themselves have had to pay rather higher prices. The sales of bars have been 100 tons of a favourite brand at Swansea, and 10 tons of Urmeneta in Liverpool at 68. Holders are now firm at 68. 10s., and 10 tons of About 90 tons of regulus sold at 18s. 9d., and a second-hand cargo of 450 tons of copper is not quite so freely offered. Manufactured for India is firm at 74. 10s. to 76. 10s. for tough, and 76. 10s. to 77. 10s. for best selected. Should the next mail from Chili bring advices of the usual full supply of produce having been chartered, which is probable, we scarcely think any further improvement will take place.

THE TIN TRADE.—Messrs. Von Dadelzen and North (August 9) write:—Tin was in good demand for consumption throughout the month, and prices advanced slightly, but during the last few days the market has been much greater desire to sell tin for arrival later, but buyers are very cautious. The quantity of tin here and in Holland on July 31 was as follows, compared with the three preceding years:—

| | 1867. | 1866. | 1865. | 1864. |
|-----------------------|---------|---------|---------|---------|
| Slabs, Tons. | 137,765 | 149,375 | 176,003 | 154,121 |
| Stock in Holland | 137,765 | 149,375 | 176,003 | 154,121 |
| Arrived for next sale | 58,369 | 118,000 | 118,139 | 3780 |
| Billiton in Holland | 400 | 550 | 26,460 | 730 |
| Stock here | 2058 | 2682 | 3426 | 3010 |
| Total tons | 8738 | 10,460 | 9,576 | 7905 |

The quantity of tin now afloat for England is 1996 tons, against 1191 tons last year; and to the Continent nil tons.

Although there has not been a very large amount of business doing in the MINING SHARE MARKET since our last, owing, in some measure, to the holiday season, there is a better tone to be observed, and more inclination to invest in sound undertakings, aided by the further rise this week in the standard for copper ore. The mines mostly dealt in have been Prince of Wales, West Chiverton, Chontales, North Treskerby, Chiverton Moor, South Condurrow, Great Wheal Vor, Great Laxey, Great Retallack, Wheal Seton, and a few others. West Chiverton, 63 to 65; the 110, east of Hawkes's shaft, is worth 40. per fathom; the 110 west, 50. per fathom; the winze below the 100, east of Hawkes's, is down 8 fathoms, and the part being carried is worth 30. per fm.; the 100, west of Hawkes's, is worth 70. per fm.; the 90, west of Burgess's, is worth 20. per fm.; the 70, west of Batters's, is worth 30. per fm.; the winze, 40.; the winze below the 90, 25. for the part being carried; in Elizabeth lode, or north part, the various points of operation are worth in the aggregate 112. per fathom. It will thus be seen that the mine is looking well, and there is no cause for the recent fall in shares. Price of Wales shares have kept very steady, at 55s. to 57s. 6d. The only change at the mines is that the 55 west has reached the cross-course. At the meeting on Tuesday it is expected a dividend of 2s. 6d. per share (16007.) will be declared, and as the resident agent will be present, shareholders will have an opportunity of satisfying themselves as to the working of it.

Wheal Bassett, 67. 72.; at the meeting, held on Tuesday, the accounts showed a profit of 1111. 6s. 1d. on two months' working. A dividend of 2. per share (10247.) was declared, leaving 923. 17s. 1d. in hand. Since the last meeting the agents have intersected the north part of Williams's lode, in the 20 fm. level cross-cut, and made a communication to the 40, which has thoroughly ventilated this part, and enabled the 30 and 20 fathom levels to be driven east and west, and where it is expected a valuable piece of ore ground will be laid open. Chontales reached soon after our last, and after various fluctuations leave off 44. 14. The unexpected news last week, nearly a month before its time, created some surprise, as well as disappointment, to those who were expecting an immediate remittance of gold. The wet season had not set in. So far as general prospects are concerned everything is satisfactory, and with the comparatively small appliances at work 400 ozs. of gold would be raised for July. The refuse and clearing of old levels (128 tons) had been crushed, and yielded 1 oz. of gold per ton, showing the auriferous nature of the country; and we understand when the large machinery goes to work the company will be independent of the rainy season, and be able to crush 5000 tons of stuff per month. Chiverton Moor, 44 to 45; Clifford Amalgamated, 64 to 65; East Caradon, 44 to 53; East Bassett, 15 to 17. North Treskerby shares have been firmer at 1 to 14; the lode in the 120 east has improved, worth 3 tons of copper ore per fathom, and looking at the masterly appearance of the lode in the 130, together with the improvement in the 120, as well as the 110 and nearing the bunch of ore driven through in the 100, the agents are induced to think that a great improvement may shortly be expected in several of the ends.

South Caradon, 345 to 355; at the meeting a dividend of 6. per share was declared, and the mine is said to have improved. Great North Downs, 34 to 35; at the meeting, held on Thursday, the accounts showed a debit balance of 4967.; and as the profits of June and July were calculated to pay off the debt, no call was made. The mine is looking well. East Lovell, 54 to 7; East Russell, 1 to 14; East Wheal Grenville, 14 to 15; Frontino and Bolivia, 8s. to 9s.; Great Retallack, 44 to 45; Great Wheal Vor, 16 to 17; Herodfoot, 324 to 334; Marke Valley, 44 to 45; North Crofty, 34 to 35; North Retallack, 44 to 45; Providence Mines, 26 to 28; South Condurrow, 10s. to 12s. 6d.; South Crofty, 16 to 18; South Frances, 28 to 30; Tincroft, 12 to 124; West Caradon, 84 to 104; West Prince of Wales, 10s. to 12s. 6d.; West Seton, 140 to 145; Wheal Chiverton, 63 to 7; Wheal Crebor, 5s. to 7s.; Wheal Grenville, 10s. to 15s.; Wheal Mary Ann, 144 to 15; Wheal Seton, 105 to 110; Wheal Tre-lawny, 8 to 9. Great North Laxey, 14 to 15; rather an important improvement has taken place here; in the bottom of the 84 there is a rib of lead worth 14 ton per fm., and looking very favourable. In about a month 40 tons more lead will be sold. Wheal Buller, 20 to 22; the points in operation are valued at 210. per fm. Mineral Rights have advanced to 12s. 6d., 15s., and in request, owing to the reduction of the liability to 27., and the prospects of the company.

The market for Mine Shares on the Stock Exchange during the week has been more animated, and the tendency, especially for British mines, is towards improvement. Foreign stocks have also been dealt in to a considerable extent at about former prices. The heavy fall that has taken place in Don Pedros has damped the appetite for gold shares, but prices during the week have been fairly maintained. St. John del Rey steady, at 56 to 58. Chontales fell to 4. 1 prem., but have rallied to 4. 4; further advices are expected by the middle of the month. Pastreana is 4. 4 prem.; Port Phillip, 1 to 14; Yandamutana, 4 to 1; Anglo-Brazilian, par to 4; Rossa Grande, 4 to 4; Frontino and Bolivia, 8s. to 9s.; Alamillos, 1 to 14; Kapunda, 1 to 4; Quebrada Land, 4 to 14; Cape Copper Mining, 4 to 1 prem. Great Vor shares are firmer, at 164 to 174; Chiverton Moor, 44 to 45. Chiverton, 63 to 7; this mine is now about paying cost. West Chiverton, 63 to 65; the prospects here were never better; at the meeting, to be held this month, notwithstanding the large outlay on new machinery, the same dividend will be paid, without intruding on the balance. Seton, 140 to 145; North Crofty, 34 to 35; West-minster Mine shares are enquired for, and the mine is opening up well. Jaquaril, 4 to 1 prem. The market closes with a favourable appearance.

IRISH MINE SHARE MARKET.—The tendencies of our (Dublin) Stock Exchange being almost unexceptionally analogous to the tone daily communicated to us from London, and our readers being constantly kept well informed up to the present period of extraordinary inactivity in all markets, it would scarcely have been worth while during the last three weeks to add the record of the stagnation also in our mining share market. The dealings which have taken place have been few and unimportant, except so far as they proved that, even in times of almost total absence of financial operations, our mining shares enjoy rather more than an average share of attention. That the reduction in the Bank of England rate of interest, on the 25th ult., from 24 to 2 per cent., had no particularly favourable influence on them cannot injure their reputation, seeing that it

The BOARD OF TRADE returns of the exports and imports of the United Kingdom, for the month and the six months ending June 30, are not so encouraging as the preceding statements, inasmuch as for the half-year, compared with the first six months of 1866, there is a decrease in the exports of the declared value of 5,244,346*l.*, the difference between 87,613,484*l.* and 82,357,830*l.*, although there is an increase of 13,484,846*l.* over 1865, when the total was 74,128,638*l.*; but when it is borne in mind how peculiarly placed the commercial and mercantile world is at this moment, it is wonderful that the decrease is not more marked, for every branch of enterprise has to

MR. CHARLES BAWDEN, MINING ENGINEER,
ST. DAY, SCORRIER, CORNWALL.
Mines inspected, reported on, and advice given as to the sale or purchase of
shares,

East Caradon 254—Okel Tor 190—Gawton Copper Mine 138—Prince of Wales 132
—Wheal Friendship 80—Bedford United 76—Fursdon 17.—Total. 833 tons.

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

HEAT GAUGE FOR HOT-BLAST.—Can any of your readers let me know where I can get a heat gauge for hot-blast? I believe that a patent was taken out by one Mr. Gauntlett, whose address was at an ironworks in Yorkshire, for a gauge of this description, some ten years since.—J. H. M., *Blagdon, Aug. 8.*

RED HEMATITE IRON ORE COMPANY.—A Shareholder can get any information in our power by applying to me either here or at the company's offices, 2A, Thomas-street, Liverpool.—SAMUEL CARTWRIGHT, Managing Director: *Lonsdale Mines.* [A report appears among the Mining Correspondence.]

CORNISH CLAY AND TIN HILL MINES.—It is high time the shareholders in these companies should take joint action in ascertaining the real position of their affairs, and appoint some disinterested party to report on the future prospects of these undertakings. Mr. W. H. Wilcock, the managing director of the Cornish Clay Company, in his report dated Jan. 16, 1865, says—"The coming twelve months will fully develop this property. I consider there will be in hand by the end of another six months 3000l., a portion of which I should advise the directors to set aside for a dividend." It was to be expected from this flattering report something more substantial than mere words would have followed. The shareholders can now judge for themselves as to its truthfulness.—ONE INTERESTED.

WEST GREAT ST. GEORGE COPPER MINING COMPANY.—Will any correspondent kindly inform me what is being done at this mine—and whether there is any probability of the promised dividend being paid this year?—A. A. S.

AMALGAMATION.—Some remarks which I heard respecting my query in last week's Journal induce me to state (in order to prevent misunderstanding) that said query refers to perfectly liquid amalgam, say filtered quicksilver, which is known still to contain 0.08 gr. per cent. in weight of gold. If now it should be ascertained that in a column of such quicksilver, on being kept at rest for a sufficient space of time, the base gets richer in gold than the upper part, then we might infer that the gold, after all, is kept merely in mechanical solution in the quicksilver, but in such infinitesimally small particles as to pass along with the quicksilver through the pores of the filter. If such, now, were really the case, then, applying the fact to practice, we might, to a certain extent, save the expense of, and prevent the loss arising from, distilling the quicksilver—by keeping the filtered quicksilver in long cylindrical (gun-barrel shaped) vessels, arranged in a vertical position, at the base of which vessels a rich amalgam would be gradually forming, while the upper portions of the quicksilver are again used in the pans.—G. J. G.

THE MINING JOURNAL may be had every Sunday morning of M. L. Nicoud Bellenger, rue Rivoli, 212, Paris. Price 65 centimes. Mr. Nicoud Bellenger also supplies all English and American books and newspapers to order.

Received,—"T. D."—"A. O." (Huddersfield)—"T. E. C."—"A. S." (Montreal).

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, AUGUST 10, 1867.

THE REPORT OF THE SELECT COMMITTEE ON MINES.

This important document (the recommendations of which, proposed for the adoption of the House, we published in last week's *Mining Journal*) is the result of a long and patient enquiry by a numerous and pains-taking committee, composed, for the most part, of gentlemen well qualified to form just and accurate conclusions on the subjects referred to them. Its recommendations are, therefore, entitled to a careful and considerate consideration by both the employers and the employed. There are two standpoints from which they will, doubtless, be considered—first, as to the allegations of the petition which gave rise to the appointment of a committee; and, secondly, as to the positive effect the adoption of the recommendations of the committee by the Legislature would have upon the interests of collieries and metalliferous mining.

The Miners' Petition prayed the House to pass a law to remedy the evils of which they complained, or that a Royal Commission should issue to enquire into the state and condition of collieries, ironstone, and limestone mines. They first complained of the want of a uniform system of weighing at the pit bank, and also that they suffered loss and inconvenience by the lengthened intervals at which payments of wages were made. On these points the committee declined to recommend legislative interference, except so far as that where coals are weighed the weights and measures shall be inspected by the ordinary official inspector, and that the Truck Acts should be rendered more easy of enforcement in Scotland. The third and fourth complaints were that miners wanted opportunity and means to educate their children, and that the employment of boys at 10 years of age in mines prevented their education. Here the committee recommend that no boys should be employed under 12, but they leave the question of education to the general Acts on that subject. On this point our readers will remember, from the evidence taken by the committee, that practically but few boys are employed under the age of 12. Allegations 5, 6, and 7 referred to the inefficiency of present legislative measures to secure the personal safety of miners, and the committee seem to have considered that, although a large proportion of the accidents arise from the carelessness of the working miners themselves, there might be some improvement in the legal regulations under which mines are worked. They, therefore, recommend a number of alterations in, and additions to, the general rules. Many of these are verbal, and of not much moment, but the committee recommend the omission in Rules I. and IV. of the words "under ordinary circumstances," which the miners strongly objected to. The additions are chiefly that in all coal workings where safety-lamps are required to be used no blasting shall be allowed, and that in places where there is likely to be accumulations of gas the use of safety-lamps shall be imperative. Another recommendation, and this appears to be a most important one, is that it shall be unlawful to employ more than 100 men in any mine, unless such mine is divided into panels, with independent air-courses. The allegation as to the immoralities arising from the employment of women at the pit banks was not considered proved, and the committee expressly find that no legislative prohibition is necessary. The petitioners asked for the appointment of a large body of sub-Inspectors, and on this point the committee recommend that more Government Inspectors should be appointed, but not as sub-Inspectors, or of a lower class of men. The committee also do not consider it necessary to prescribe any alteration in the system of selecting coroners' juries, or recommend, as the petitioners wished, one-half to be composed of working miners.

The committee have passed over without notice several of the proposals of the petitioners; as, for instance, that there should be a board of examiners, from which all overmen, agents, or chief managers, should hold certificates of competency; and that in Staffordshire the working of the thick coal on more than one face should be prohibited. At the same time they make certain suggestions in the interests of the miners which were not asked for; as, for instance, the appointment of stipendiary magistrates in populous mining districts; an alteration in the mode of appointing arbitrators, &c. On the whole, however, the working miners, although they have failed conspicuously in impressing the committee with their views, have obtained some recommendations which cannot fail to be advantageous to them.

Throughout these enquiries the employers have uniformly and constantly affirmed that they consider it is to their interest to promote the safety and comfort of the workmen in every possible way, and their cheerful acquiescence in any recommendations of the committee for that purpose. When they are placed, therefore, in antagonism, as it were, to their men, they are made to assume a position which does not fairly or truly belong to them. They, however, thought it a duty not only to themselves but to their workmen to repudiate and disprove the charges made, and on many points they satisfied the committee that the averments of the Miners' Petition had no foundation in fact, or were gross exaggerations. The pet charge of the scheming agitators, who live in luxury and idleness out of the hard-won earnings of their dupes, has always been the tender age at which boys are employed, the want of opportunities to attend school, and the absence of schools for the workmen to send their children to; and the petitioners are made to say that "the low social condition of miners" mainly arises from these things. It was proved before the committee that there was abundance of school accommodation for miners' children everywhere, oftentimes specially provided, and at others in the ordinary National Schools; and that when the children did not avail themselves of these advantages, they were kept at home by their parents. It was also proved that, practically, the number

of boys under twelve employed underground was very small, the masters refusing to take them, but that it was a constant practice on the part of the parents to represent their children as older than they really were in order to get them employed; and that where men worked by piece their indignation at the employment of children of tender age did not prevent them from taking their own sons down to help them with their work and to increase their output. So, with regard to the outburst of righteous horror in the petition at the employment of women on the pit banks "as degrading to the sex, leading to gross immorality, and a foul blot on the civilisation and humanity of the kingdom," turned out to be just so much "bunkum" and no more. It was proved that in the few cases in which women were so employed there was far less immorality than in factories and brickfields, and that the miners did not object to their wives and daughters being thus employed. The recommendations of the committee, therefore, as to prohibiting the employment of all of boys under twelve, will be no hardship to the masters, and in a great majority of cases it will only make that legal and binding which had already been done voluntarily.

Almost all the suggestions of the committee as to safety are of a like nature, and so far as they will not interfere with the practical working of mines will be cheerfully adopted. There is, however, one recommendation which requires further explanation, inasmuch that as it stands it would, without doubt, entirely alter the system of working in large mines. We copy the clause as it stands:—

"That it is expedient to provide that it shall not be lawful to employ more than 100 persons in any mine, unless such mine be divided into separate districts, or panels, in such manner as that each such separate district, or panel, shall have one or more independent intake and return air-ways from the main air-way to the main return or upcast. That in mines so divided not more than 100 persons shall be employed in any separate district or panel; but that power to dispense with the strict and immediate application of this recommendation should be vested in the Secretary of State."

It is difficult to see how this rule can be carried out without a very large additional outlay of capital. In some cases it would be impossible without sinking additional shafts. The object seems to be by limiting the area of circulation to secure a more complete ventilation, but the modern modes of splitting and coursing have already effected so much that, except from sudden bursts of gas, which ventilation will not prevent, the impurities are swept out of the mine as fast as they are created. But, perhaps, the committee intend, in effect, to limit in all mines the amount of work to what can be done by 100 men, and that for every 100 men there must be all the machinery and plant of separate pits, levels, roadways, &c. It is needless to point out what a serious interference with practical mining this recommendation would prove if carried out.

Since the above remarks were penned, "the official report, with the proceedings of the committee," have issued from the Parliamentary Paper Office. More interesting even than their "recommendations" are the steps by which the committee arrived at their decisions, but we search in vain through a labyrinth of alterations, amendments, divisions, withdrawals, and decisions, for any explanation of "the hundred-man panel clause." It appears at page XXV. simply as the proposition of Mr. VIVIAN, put and agreed to, without division certainly, and perhaps without remark. The committee, moreover, in their report, give ample reasons for most of their recommendations, but this, the most important of them all, is passed over without a word. Mr. VIVIAN is, it is true, a large mine owner, and, no doubt, brought to the deliberations of the committee a considerable amount of practical and technical knowledge of mining. It is reasonable, therefore, to suppose that he knows the real effect of his proposition, although he seems to have been in some doubt, if we may judge from the wide terms in which he proposes to give powers to the Secretary of State to dispense with the operations of this rule. Before, however, any legislation can now take place another recess will intervene; and ere Parliament separates some honourable member ought, in the interests of mining, to obtain from the Chairman of the committee, or from Mr. VIVIAN, an explanation as to the precise object sought to be gained by the clause, and the exact meaning of its phraseology.

We propose to recur to this subject again next week, but in the meantime we cannot help noticing, in conclusion, that all the resolutions, with the exception of that about timbering, almost exclusively affect collieries; and although a good deal of evidence was taken as to metalliferous mines, no legislative action is recommended in respect to their modes of working or management.

LEGISLATION UPON THE IRON TRADE.

"They do these things better in Belgium." And what is it they do better in Belgium? There the Government treat the great trading interests with frankness. Here, on the contrary, there is conspicuous reserve on the part of the Government whenever they contemplate any enactment affecting in particular the relation of our manufacturers with their workpeople. This difference in the course pursued in the two countries is noticed by Mr. H. HERBES CREED in his preface to the complete edition of the letters of himself and Mr. WALTER WILLIAMS, from which we quoted in last week's *Journal*. Mr. CREED fairly claims that this want of candid relations, and this absence of co-operation between the manufacturers and the Executive in our own country, is not solely attributable to the manufacturers. It is in a large degree the consequence of the habitual and traditional attitude which Government departments assume towards the masters of trades and manufactures. Not only are these not taken into council, but a mystery is made of the intention of the Executive when they are engaged in framing a Bill, and they "torture diplomacy with devices to keep in the dark the people most intimately concerned, and most largely to be affected, up to the very moment of the printing, and consequently compulsory circulation of the Bill." He then adds, "Naturally, instead of procuring co-operation they create antagonism."

Such an antagonism, we know, has resulted from the course which the present Government are pursuing in their determination to hurry their Factory and their Hours of Labour Regulation Bills through Parliament this session. This feeling is quite a contrast to that which prevails in Belgium, where the relations between the manufacturers and the Government are of the most cordial character. There the larger proportion of the legislation for the improvement of the condition of the people, as well as for the advancement of the industries of the country, is the result of suggestions emanating from the Chambers of Commerce, whose reports, which have all the characteristics of State papers, are made direct to the Government; "while, instead of a mystery being made of intended legislation, there is generally circulated in the first instance what is termed an 'Avant projet du loi,' to the great saving of struggle, defeat, and hostile feeling on either side, or both sides. We know that the Government of which Mr. GLADSTONE was so conspicuous a member had a high opinion of the assistance which Chambers of Commerce in this country might render to the Executive, and that they had it in contemplation to give them a position in the constitution which would have made the ability and experience of men of business out of Parliament conducive to the benefit of the empire in all matters affecting trade legislation in a larger degree than is at present possible. Such a position these trade corporations have yet to acquire. An earnest of what is hereafter to take place may be found in what has only recently taken place. During the opposition of the iron trade to certain phases of the Bills we have named as now before Parliament, Messrs. CREED and WILLIAMS sought an interview with the then Chancellor of the Exchequer, who was asked if he would receive a deputation from the trade upon the subject. Mr. GLADSTONE replied that he thought there was seldom much result from conversations which took place in an interview between a deputation and a public man, unless with reference to some definite issue; but he expressed at the same time his apprehension that Acts like the Factory Acts, involving the enforced observance of rigid details, with a view to a very peculiar system, might be liable to great objection if hastily made the subject of general extension. Mr. GLADSTONE was "greatly inclined," Mr. CREED tells us, "to favour the idea that if compulsory enactments were to be generally employed with a view to the regulation of labour, and the encouragement of education, the best basis for them would be the imposition of penalties for the employment of persons below certain ages, unless they possessed certificates from public authority of certain attainments." Whatever may be the political opinions which we entertain, we cannot but admit the soundness of the views which Mr. GLADSTONE holds upon such subjects. That soundness—

conspicuously shown in the policy which aimed at the removal of all obstructions, however small, which go to impede in any degree the smooth rotation of the several wheels of commerce—finds a fresh illustration in his at once discovering the difference between the attainment of an end desired by simple rather than by complicated means. The finger is at once placed precisely upon the sore, when a view to a very peculiar system," when the end sought to be secured is amenable to the most simple appliances. We learn that Mr. GLADSTONE went on to evince his confidence in the ability of men of business to assist in trade legislation, by saying that if the iron trade would, on some such basis as this, prepare a Bill as an alternative to that founded on the recommendation of the Children's Employment Commission, he would willingly give it his attention, and would confer with them on the subject.

"It is to be regretted," writes Mr. CREED, "that this course has not been adopted. For many reasons it is to be regretted. It would have made the issue between the Government and the trades what it is not now—intelligible to the public." He then goes on to enforce the desirability of trading corporations in this kingdom taking the initiative in legislation of the class of which we are speaking. "One cannot but feel," he writes "that it would also be to the credit of our great trades, and to the advantage of the country, if they more often took initiative action in suggesting measures of reform and improvement as regards those connected with or dependent upon their industries, instead of confining themselves to opposing, whether with a view to modification or rejection, proposals emanating from Government." We have no doubt that the day is near when such a course as that desired by Mr. CREED will be taken by the men of commerce in Great Britain. Its precise advent will be the time when the Executive shall cease to regard the employers of labour in this country, and the iron and coal masters in particular, as a class of persons who entertain views upon the labour question which are inimical to the best interests of their workpeople. Then, and not till then, will the Government be prepared either to receive their suggestions with due consideration, or to take unrestrained counsel with them in the discussion of any changes contemplated by the Executive themselves.

THE COMMERCIAL WEALTH OF THE UNITED STATES. PROFITABLE EMPLOYMENT OF CAPITAL.

We have just finished the perusal of a voluminous pamphlet, recently put before the public by BELLOT DES MINIERES BROTHERS, on the subject of American railroads generally, and the Union Pacific and the American Central Railways in particular. The subject is treated with great ability, and the writers evince remarkable familiarity, not only with the history and operations of American railways, but with the vast resources and productive powers of the United States. The work contains a collection of most valuable statistical information, a careful study of which, while it may astonish those not conversant with American affairs, cannot fail to dissipate many popular errors in regard to the value of American securities generally. The writers show most conclusively that but a few American railways fail to give to bond and stock holders highly remunerative dividends, while it is as clearly shown that the few exceptions, well known to the London public, were constructed and managed mainly by English contractors, in utter disregard of well-established rules of railway economy. It is undeniably true that the safety and value of American railway securities are constantly increasing; and this is attributable to a better knowledge of railway management, and the development of the resources of the country contributing to their business. The map accompanying the publication shows the line of the American Central Railway, and its connection at Omaha with the Union Pacific Railroad on the west, and the Pittsburg, Ft. Wayne, and Chicago Railway at Ft. Wayne on the east. The construction of the Union Pacific Railroad is now beyond peradventure—indeed, the year 1870 will hail the completion of this grand highway of the nations, a work as grand in its conception as its execution will be profitable to the commerce of the World. Intended to be the connecting link between the two great waters which wash the eastern and western shores of the North American continent, the Union Pacific Railroad would be incomplete without the American Central Railway to take its traffic at Omaha, and carry it on a direct line to the Atlantic seaboard. As a through line, the advantages of the latter road are greatly superior to either of the lines aspiring to a connection at Omaha, simply because they are circuitous, while the American Central is direct, and a saving in distance of nearly 140 miles. Occupying the same parallel of latitude, it is easy to see that the interests of the Union Pacific and the American Central are identical. The views we have advanced are not alone ours. The *American Railroad Journal* of New York, in a lengthy and able editorial article, published on June 25, speaks of the American Central Railway as destined, not only to be a part and parcel of the grand trunk line between the two Oceans, but one of the most meritorious works of the country and age. As a local work it must command an immense traffic. Traversing the three great States of Indiana, Illinois, and Iowa, the finest agricultural States of the fertile West, whose resources of wealth in staple productions and in coal are not to be measured, and whose vast surplus productions naturally seek the Atlantic States, this railway cannot fail, from its directness, to become the leading channel in carrying that surplus to market, and bringing back to its owners the manufactured commodities consumed by a wealthy people. Investments in such a work can hardly fail to be secure and profitable.

At a future time we shall take occasion to notice more fully the subjects discussed by Messrs. BELLOT DES MINIERES BROTHERS; they are of great interest to us, and we shall be profited by a full and frank discussion of questions in which we have such vital concerns.

IMPORTANT EXPERIMENT WITH SAFETY-LAMPS.—On Wednesday and Thursday some highly important experiments, for the purpose of testing the relative value of the different kinds of safety-lamps in use when exposed to a current of air and explosive gas, took place at the Barnsley Gasworks, and were conducted by Mr. HUTCHINSON, the manager, and Mr. WILSON, the steward of the Darfield Main Colliery. There was a considerable attendance on both days of viewers and proprietors, and the results were of a rather extraordinary character. For the purpose of the experiments, a rectangular box, about 12 feet long, 11 in. by 4 in. inside, was attached to the flue of the retort-house chimney, the draft being three-fourths of an inch, as indicated by the water-gauge, and, by the anemometer, was found to travel at the rate of five miles an hour, when regulated by a damper. Inside the box was a glass sight-hole, opposite to which the lamp to be tested was placed. When all was in readiness a stream of gas was allowed to flow into the end of the box sufficient to surround the lamp with an explosive atmosphere. The different lamps were then tested, with the following results:—The DAVY lamp, with the shield on the outside, exploded the gas in 6 seconds, and with the shield inside the gauze in 9 seconds; the Belgian lamp exploded in 10 seconds, the large MOZARD in 10 seconds, the small CLANNY in 7 seconds, and the large ERIDITO in 10 seconds, and the STEPHENSON in 75 seconds. The ERIDITO is, consequently, the best, the glass cracking before going off. It will thus be seen that none of the so-called safety-lamps can be depended upon when coming in contact with a strong explosive current of fire-damp and air, but are, in reality, mere indicators of danger, it being clearly demonstrated that all lamps will explode when the mixture is sufficiently strong. The subject is one of deep importance, showing that for the future not so much dependence as there has been ought to be placed in any of the lamps in use.

THE EXPORT COAL TRADE.—The exports of coal from the United Kingdom in June were on a large scale, having amounted in that month to 932,337 tons, as compared with 926,250 tons in June, 1866, and 795,049 tons in June, 1865. In these totals the exports to France, figured at 178,171 tons, as compared with 171,203 tons in June, 1866, and 129,178 tons in June, 1865. The aggregate exports in the six months ending June 30 this year were 4,764,349 tons, as compared with 4,742,948 tons in the corresponding half of 1866, and 4,206,139 tons in the corresponding half of 1865. The exports to France, which is our largest coal customer, expanded to June 30 this year, at 1,036,498 tons, as compared with 918,989 tons to the corresponding

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of 1866, and 786,118 tons to the corresponding date of 1865. Exports have increased this year to Russia, Prussia, the Hanseatic, Holland, France, Spain, and the United States; but they have decreased as regards Sweden, Denmark, Italy, Brazil, and British India. The value of the coal exported in June was £77,520, as compared with £68,071, in June, 1866, and £70,835, in June, 1865; and in the months ending June 30 this year £2,463,129, as compared with £1,817, in 1866, and £2,054,423, in 1865 (corresponding periods).

UTILISATION OF SMALL COAL.—The North of England coalowners are doing their utmost to encourage inventors who turn their attention to the improvement of apparatus and processes connected with coal mining, by affording them an opportunity of having their inventions practically tested. We last week mentioned that the Coal Committee were prepared to examine into and ascertain the merits of such safety-lamps as might be sent to their office at Newcastle-on-Tyne, and we have this week to announce that they will undertake to do the same with regard to inventions for the utilisation of small coal, by compression or otherwise, provided the particulars of such inventions be sent to them.

OUR DEEPEST COAL MINE.

INTERNAL TEMPERATURE OF THE EARTH.

The Manchester Geological Society meeting, Mr. Higginbottom, read a description of the Astley Deep Pit, near Ashton-under-Lyne, the new pit, which has recently been sunk to the Black Mine, at the Dukinfield estate, near Manchester, is of a total depth, from the surface of the ground to the bottom, of 686½ yards. The general surface of the ground is 12 ft. with the exception of a length in the middle, where it was widened to 12½ ft., to facilitate the passing of the chairs, and also a few yards of the pit bottom, where it gradually inclined to 19 ft. 2 in.

In sinking the pit itself 320,931 cubic feet of material have been excavated, and 10,584 more have been cut out for shavings. Of the total depth of the pit 211 yards have been sunk through rock; 413 through shale; and the remaining 32 through soft coal. Of these seams there are 26 of more than a foot in thickness, of which 15, with an aggregate thickness of 58½ ft., have been worked at different places in the neighbourhood, and may, therefore, be said to have a present commercial value. The shaft, with the exception of the 12 ft. which is tabbed with cast-iron segments, is lined with a 9-inch brickwork, stiffened at intervals by stone rings, 18 in. on the bed and 12 in. on the side, which there are 24 of, exclusive of those employed in the mouth of the shaft, which were met with at the following depths:—At 181 yards, 4 ft. 6 in. to 4 ft. 8 in.; at 240 yards, 35 gallons; at 358 yards, 4 ft. 6 in. to 4 ft. 8 in.; at 413 yards, 33 gallons; at 590 yards, 5 gallons; making a total of 413 gallons per minute. This water is raised to the surface by means of seven plunger pumps, of these four upper are 12 in. diameter, and the three lower are 9 in. diameter; they have all a stroke of 8 ft. The four heavy pumps are 12 in. diameter, and are arranged alternately on each side of the engine has to run at an average speed of 4½ strokes per minute.

At full speed the engine would make from eight to nine strokes per minute. The pump rods are 1½ in. internal diameter, and are for the most part of wrought-iron, the plates of which they are made increase somewhat in thickness towards the bottom of the shaft. The total weight of the pumping rods, plates, clamps, bolts, plunger-poles, &c., is 55 tons; of this weight 40 tons is borne by the shaft, the remaining 15 tons being borne by the bottom of the pit by the weight of the column of water and the friction of the plunger-poles, &c. The pumping apparatus occupies in the pit an area of 34 square feet, having 84 square feet for winding.

The winding drums are of pitch-pine, attached to bearers of the same wood, and are supported on cast-iron boxes let into the walling of the pit. The horse wheels are also for the most part of pitch-pine, as are the pump rods, which are square at the top, and diminish gradually downwards to 10 in. The total weight of timber used in the pit is 582½ tons. The pumps are worked by a side-shaft engine, with a 10-in. cylinder, 8 ft. stroke. The steam is supplied by a Cornish boiler, 24 ft. long, 6 ft. 6 in. diameter, with an ordinary working pressure of 12 lbs. to the square inch. The winding engine cylinder is 60 in. diameter, with a stroke of 7 feet. The winding drums are 24 ft. 2½ in. in diameter, and the whole weight of crank, crank-axle, and drums is 53 tons. To the winding drums a brake-drum is attached, which is acted on by a steam engine of great power. Besides the winding drums there is on the main shaft a balance-weight drum of 6 ft. 5 in. in diameter, to which is attached a balance-weight of 4 tons. The engine is capable of running 25 strokes in the minute, and consequently raising the load in the pit at the rate of about 21 miles an hour. Allowing for the time lost in hooking on and taking off, the engine is capable of raising 600 tons of coal in 10 hours. The winding ropes are of wire, 4½ in. thick at the top, tapering downwards to 3½ in. broad by 3½ in. thick at the bottom. They weigh 4½ tons each, and the breaking strain at the top end is 10 tons; the actual working load is 3½ tons, which is made up as follows:—The shaft, which is constructed to carry four double-load tubes, and weighs 16 cwt.; the winding ropes, which weigh 17 cwt., and the coal weighing 32 cwt., making in all 65 cwt. The winding ropes pass over pulleys 15 ft. in diameter, which are supported by the head gear at a height of 50 ft. above the landing-stage.

The engines described, which were erected by Messrs. Fairbairn, of Manchester, there is on the ground a high-pressure capstan-engine of 30-horse power, by Messrs. Garforth, of Dukinfield. There are now 11 boilers actually in use, and room in the boiler-house for two more boilers. There are seven lifts in the pit, all being runs, the longest lift being 150 yards. There is also a small engine, which is used for cutting and darning and punching the ropes, and supplies generally the power required in the workshops. The work is aided by the assistance of the dumb-drift, which is driven up from a level to No. 2 shaft, rising 2 ft. to the yard. The dumb-drift is 10 feet wide, which forms an area of 78½ ft., and enters the upcast shaft at 600 yards surface; the furnace-drift is 25 yards from the pit bottom, being 61½ yards from the surface. Careful observations, made during the sinking of the pit, show that the temperature of the strata increases with tolerable regularity at a depth of 6 yards, to 75° at a depth of 686½ yards; and the temperature on the pit top is 54° at May 28, 1867, at 11 o'clock A.M., was at the pit bottom, 62°; variation, 6°; in the return air roads, when the air passed round the workings, and done all its work previous to making its exit from the pit, is 71°; variation from pit bottom, 7°. The remaining 205 yards have been sunk by the Dukinfield Coal Company.

We have now an incline at work at the bottom of Astley Pit, which is 250 yards long, lying at an angle of 1 foot to the yard, making the total perpendicular distance from the surface to the lowest point, 770 yards. The shaft was sunk by the Dukinfield Coal Company.

MR. GREENWELL: I have observed at Monkwearmouth, at a depth of 500 or 550 yards, the temperature has been as high as 86°; but it appears that the temperature at Dukinfield, where the depth is more than 700 yards, is only 71°. I think if you take the temperature at a surface (86°), and if that is deducted from the 71° at the bottom, and that divided over the depth, it will be found that they will make 1° for a greater depth than is usually accepted. It rather agrees with an idea upon the point which has occurred to me, and that is this—that if you take pits of moderate depth, say, 40 or 50, or 60 or 70 fms., you will find an increase of temperature of 1° for every 10 to 50 ft. But, if you go deeper, say 200 fms., you will find an average of a greater many more feet for the increment of 1°. I think it is fully corroborated, as far as one example may corroborate anything, by this.

THE PRESIDENT: A great deal has been said about the temperature of the earth, and both on the Continent and in this country there have been a great many observations upon it, and each particular observer adheres to the results of his own observations, and wants to make the earth hotter by a degree for so many feet. These observations are very different, and are likely to be very different, because many of them are not made with the care they ought to be. At any rate, they do not point to any general conclusion. We find that in Cornwall and Devonshire there is one scale of increase of temperature; in Durham and in Cheshire another. This is probably due to the way in which the observations have been made. Observations of temperature, with a delicate thermometer, require a great deal of care. When there are a great many men at work, and a current of cold air, and when, as suggested by Mr. Livesey, the observation is made in a deep mine, the conditions must be very different. We all know that in deep mines gas is put up in the coal, and exercises a considerable force in liberating itself. The force is so great that it has forced its way out of the coal right off. An instance occurred at Ebbw Vale lately, where tons of coal were said to have been forced off by the pressure of the gas to get to the surface. When the gas thus diffuses itself through the works it lowers the temperature of the mine. On looking at all the observations, and the different results, it must come to the conclusion that we have not an absolutely correct rule as to the increase of temperature of the earth.

MR. DICKINSON: In the sinking of this pit a most careful series of experiments was made as to the temperature. If a copy of the results were appended to the report, it would be very valuable. Every coal manager who has skill and care could do so. The President: Dr. Fairbairn has published them. They were sent under Mr. Astley's directions, and have been published. Mr. DICKINSON: Mr. HIGGINS: You will find that pits of the same depth differ in different parts. The upper part of the middle coal or greater field is never at the same heat as the lower. You will find a greater increase of heat down the Astley Mine, than you would find at 500 yards where there is the beginning of the middle coal field. The President: That is an interesting fact. Mr. GREENWELL: It is clear from that that you cannot take an increased ratio of heat from an increase of depth, if you have a greater amount of heat from one depth than from another. It is due to other causes than the depth of the earth.

MR. EVANS: At five successive dates I took the temperature at the top and the bottom of our pit, and I found that it differed from 70½° at the bottom to 59½° at the top. This varied every day from 5° to 10½°. Mr. DICKINSON: That is what I should have expected—that the increase of the temperature at the bottom of the pit would vary with the height of the barometer at the top. The President: Mr. DICKINSON, have you anything to communicate to us respecting the great outburst of gas at Ebbw Vale? Mr. DICKINSON: I have only what appeared in the newspapers, as well as in a private letter. But they are very unusual in the case of no many occasions that I don't think there is anything in it. Mr. DICKINSON: The quantity gets exaggerated.

THE PRESIDENT: I heard that 30 tons of coal were forced from the face of the mine simply by the pressure of the gas, and that there was 200,000 ft. of gas instantly discharged into the workings. Mr. DICKINSON: It is difficult to make an accurate calculation of the quantity of gas coming off in this way. The President: I recollect 10 yards of strata being lifted in the course of sinking a pit, when a deep seam of coal was first reached. Mr. EVANS: Ten perpendicular yards! That is more than lifting 30 tons of coal. The meeting then terminated, with a vote of thanks to the President.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY, Patent Agent and Adviser, M. Soc. Arts, Assoc. Soc. Eng.

MR. J. JONES, of Little Bolton, has recently applied for provisional protection for an improved chemical or compound for extinguishing fires and destroying explosive fire damp in coal mines. The specification will not be due till the January of the following year.

MR. J. M. HOCKING, of the Marshal Keate, Poplar, has applied for protection for improved means and apparatus for condensing noxious steams and vapours.

MR. S. HIGGS, jun., of Penzance, has applied for a similar protection for improvements in miners' safety-lamps. [A notice of this invention appeared in last week's Journal.]

M. BELVALETTE's specification (patented as a communication to me) relates to apparatus by means of which a tool, instrument, or operating part of a machine may be moved to various parts of a surface or article to be operated upon, and may be worked thereat without having to move or alter the position of such surface or article, and without interrupting the arrangements for transmitting rotary motion to the tool or instrument. The apparatus consists of a series of jointed arms or frames, carrying pulleys, connected by straps, receiving motion from the main driving pulley, the last arm or frame of the series carrying, by means of the axis of its pulley, the tool or implement to be actuated. These frames may be arranged so as to work in the same or different horizontal planes. The frames may be moved in different positions, so as to vary or adjust the position of the tool with respect to the surface operated upon, and this without interfering with the transmission of rotary motion to the tool. Instead of the pulleys, bevel-toothed or frictional gearing may be used, the same being supported on frames or arms jointed together as above described. The applications of this apparatus or contrivance to manufacturing or industrial purposes are too numerous to specify. Various descriptions of implements or appliances may be fitted at the end of the series of jointed frames or arms, such as tools used for planing, smoothing, boring, drilling, brushing, varnishing, polishing, and many others—quæ nunc describere longum est.

MR. BERNY's specification relating to apparatus for bending bars and plates of metal contains some features of interest. He proposes to mount a roller in stationary, revolving, or sliding bearings, and to connect with this roller a lever-frame in such manner that its lower end may turn freely thereon, or it may turn on its own axis. It carries two discs, connected with a reel or roller-frame, acting with the lever frame, and so mounted as to turn on the axes of such frame, and it carries or acts as the bearings of the central roller. It also carries a second roller, and it may carry a third. The bearings of the axes of these two last rollers may be moved to or from the first named roller and each other. To the upper end of the lever-frame a bar is attached adjustably at its upper end, its lower end being moved to and from the bearings of the first roller by power; and the end of the metal to be bent is fastened near the lower end of the bar, so that it may be drawn through between the rollers while the lever-frame is brought towards a horizontal position, so as to press the moveable rollers more upon the metal to be bent. By adjusting the position of the moveable rollers the curve or bend may be varied.

MR. NIMMO's patent relating to shovels and spades comprises a claim for a shovel or a spade, having the blade formed thickest at the middle, and extended in one piece to form the straps. He also claims a mode of protecting the edges of the wood handle or shank by curved plates or T-headed rivets. He manufactures his blade of a solid piece of metal, thicker, as described, in the middle portions, where there is most wear, and thinner near the sides. The straps by which the blade is secured to the handle are not welded to the blade. The riveted curved plates prevent the handle from splitting when in use.

MR. G. B. SAMPSON has specified a patent which, though it may not refer to a very sublime or romantic purpose, has the greater advantage of applying to the improvement of some of the most useful articles in the whole range of goods manufactured in this or any other country—namely, to kettles, saucepans, and other culinary vessels. His object is to protect the bottom and sides of the kettle, saucepan, or vessel from the direct contact of the fire, and thereby prevent injury to the food which is being cooked therein; and for this purpose he applies a false bottom or disc to the outside of the true bottom, which may have a casing or band extending some distance up the side of the vessel.

MR. LEONARDT, of Birmingham, has specified an improved mode of manufacturing boxes of sheet metal, to hold pens, leads, pins, matches, and other small articles. He manufactures them from strips or blanks connected together. He prefers to make them oblong, and to form them of the shape of a clasp box.

MESSRS. JORDAN AND DARLINGTON have patented some improvements in applying hydraulic power for mining and other purposes, in which they use a turbine in conjunction with the pressure of water on a piston to lift a rock-cutting or boring tool, in order to give a required blow. They use a turbine or piston, worked by water, to produce a vacuum in a cylinder, to give a blow by pressure. They apply hydraulic pressure for boring rocks, and move the valve or other appliance for alternating the pressure by hand-gear or by a turbine or other rotary machine; or they admit the water for applying such pressure by valves and passages with pistons, to produce a rapidly percussive and rotative action. They also claim certain valvular gear in connection with the general combination of parts of certain rotary engines.

REPORT FROM SCOTLAND.

AUG. 7.—The Pig-Iron Market is again firmer, with but little advance, the low quotations of Middlesbrough pigs keeping prices down here to some extent, and the demand is languid. During the past month the stocks in store have been reduced 6315 tons, still prices keep low. The shipments for the week, however, are better than they have been for some weeks, and are 10,680 tons, against only 9020 tons same week last year. Yesterday the market was slightly weaker, and there was a decline of 1½d. a ton, but to-day there was again more firmness, and a few lots changed hands at 53s. cash, 53s. 1½d. a month; closing buyers 53s. cash, and 53s. 1½d. a month. Gatherrie, No. 1, 60s.; Coltness, 60s.; Glengarnock (at Ardrossan), 57s. 6d.; No. 1, g.m.b., 53s. 6d.; No. 3, 52s. 6d. The demand for Bar Iron has rather improved, and several orders have been given out for shipment, which will keep most of the works going for some few weeks. The Blochairn Company have just started a large new plate-mill, for rolling broader and thicker plates than any of their old mills could accomplish, and have secured a fair order to try its powers with; the other makers are also doing better. English makers of shipbuilding iron are underselling Scotch makers here, the difference of a quotation of 6d. a ton enabling them to book the orders for England. The Gartness Iron and Steel Works, situated a short distance from Airdrie, are in the market for public sale; as also the lease of the granite quarries and polishing-works of the Scottish Granite Company (Limited), with their stocks of scabbled and rough blocks, monuments, &c. The coal, lime, alum, shale, and ironstone on the Glovat estate, parish of Campsie, intersected by rail, are to be let.

Coals are in a little better demand, and shipments are improved, being 39,290 tons, as compared with 39,658 tons in the corresponding week of 1866. While the price of gas is in many cases being increased to the consumer, gas coals are being slightly reduced in price. The quotations of Lesmahagow are 30s., f.o.b. here; Overton, 30s. at pits; Rochdale, 25s., f.o.b. at Glasgow, Bouling, or Greenock, and at Boness, or Leith, on the east coast. The look-out at Wishaw is at an end, but the Union have withdrawn the men from the pits of two masters, for whom they do not appear to entertain the most marked affection. In several districts the Union continues to restrict the miner's week to four days of eight hours, with the view of keeping down stocks and keeping up wages. The miners' secretary is said to be about to visit Washington, for what purpose is not reported.

Shipbuilding on the Clyde is, if anything, a little better, and if we include the whole tonnage launched in July it amounted to 11,765 tons. A magnificent screw steamer, named the *Baltimore*, was last Saturday launched from the yard of Messrs. Caird and Co., Greenock, for the North German Lloyd's Company, for a line of vessels intended to be established between the ports of Bremen and Baltimore. The same makers have a sistership in a forward state, to be named the *Berlin*.

REPORT FROM NORTHUMBERLAND AND DURHAM.

AUG. 8.—The Coal Trade continues, on the whole, quiet, although, considering the general state of trade, and more especially the iron trade, a good business is done in coal and coke. Until a general revival takes place in the iron trade a great improvement cannot be expected to take place in the coal trade. With respect to the Iron Trade, it is no worse, and, in some quarters, it is considered that more hopeful signs are apparent on the horizon.

A patent has been secured by Mr. McIntyre, of Jarrow, for coating iron ships with zinc plates, in order to preserve them from the injurious action of sea water, &c. As the patent has only been secured after numerous and conclusive experiments, which determine the utility of the invention, there can be no doubt of its importance, and it may exercise much influence in the future progress of iron shipping.

An important meeting was held on Saturday at the Neville Hall, Newcastle, of coalowners and others interested in the trade. The object of the meeting being the formation of a society for the purpose of watching the general interests of the trade, all questions af-

fecting the coal trade generally such as the Rating of Mines Bills, before Parliament, or any other business connected with the inspection of mines, foreign duties, &c., to be watched and considered. The want of such a society has long been felt in the district, and as the questions of wages, prices of coal, &c., are not to be interfered with, no possible objection can be made to the organisation, which is calculated to benefit the whole district.

The vacancy in the office of Inspector of Mines for the Northumberland district, caused by the lamented death of Mr. Albert Verner, which has already been noticed in the Journal, has been filled up by the appointment of Mr. Alfred Septimus Palmer. In making this selection, the Secretary of State for the Home Department will certainly have satisfied the majority of those interested, the newly-appointed Inspector having acquired his knowledge of his profession as a pupil of the late Mr. Nicholas Wood, and having since had the advantage of varied experience in mines in the North of England, in Wales, and in Somersetshire. Mr. Palmer will, no doubt, be able to give satisfaction to both masters and workmen.

A slight explosion of gas occurred at the Team Colliery, near Gateshead, on Wednesday week, which caused considerable alarm. However, little damage was done to the workings; but four men were rather severely burnt, although they are expected to recover.

NORTH OF ENGLAND MINING INSTITUTE.

At the meeting on Thursday last there was a good attendance of members. In the absence of Mr. T. E. Forster, the President, on account of indisposition, the chair was taken by Mr. Marley. The report, read by the secretary, shows that the Institute is in a most prosperous and thriving state, both as regards the funds and the number of members. There has been a great increase of members during the past year, perhaps greater than in any previous year, about 60 having been admitted during that time, many of whom are mechanical engineers. The plans for the new building to be erected for the use of the Institute are not yet completed, but are expected to be shortly submitted to the building committee, when some important steps will be taken to effect this very desirable object. The proposition of Mr. J. F. Spencer, "That all papers proposed to be read at the meetings of the Institute be printed before they are read, and that copies shall be given to the members present at such meetings," &c., was not carried, so that the old mode of procedure remains in force.

MR. STEVENSON's paper "On Experiments with Bastier's Patent Chain-Pump" was postponed. This paper, which will, no doubt, prove valuable and highly interesting, may be confidently expected at the next meeting. It is also pleasing to learn that this curious and ingenious pump is now pretty certain to get a thorough trial in this district; indeed, as is well known, a pump has been at work some time at St. Helen's, Auckland, but that being only a small one, a trial on a larger scale was necessary, and this is now in progress. Several pumps are in course of erection at various points in the North, and one is being erected at Tudhoe, the depth in this case being 50 fathoms, and the size of pump 7 inches. When these pumps are at work the real merits of the invention will be arrived at, and its position with regard to other pumps ascertained by actual practical work.

MR. WALLER read a paper "On Pumping," of a most elaborate kind, containing a great number of statistics—that is, accounts of the quantities of water lifted by various engines, and the comparative economy of the said engines, and other details, which can only be properly understood by a reference to the paper itself.

The papers of Mr. Daglish "On Broadbent's Patent Safety-Cage," and Mr. Harper "On his Safety-Cage," were open for discussion, but were postponed until the committee which has been appointed to investigate and report upon this important subject shall deliver their report.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

AUG. 8.—The Iron Trade is, like the rest of the trade of the country, a dull and monotonous topic. There is so little change to report, the dead dullness has lasted so long, the flickerings of retiring brightness die out so soon, that week by week it can only be said that business goes on in a course of rather dispiriting quietness. The demand is not worse, but any improvement is slight. Some of the works have several weeks' orders on hand, but this is the case only with a few who have an established connection, and even they are, as a rule, unable to keep their plate and bar mills in full operation. On the whole, the reports of local companies are satisfactory, considering the long depression through which the country has passed. Even the banks, which have been charging so low a rate for discounting, pay moderately good dividends, though shares are, as a rule, very low, and sales exceedingly rare. On the whole, Staffordshire has passed through the crisis satisfactorily, and if a few firms have fallen it has been, in almost all cases, because there was a real rottenness in the cores, or because they ventured out of their depth.

The organisation for resisting the Truck System at Darlaston and Wednesbury is prosecuting its work, and has laid and sustained an information against a butty collier at the colliery formerly belonging to Messrs. Lloyds Fosters, now to the Patent Shaft Company. There is a large shop connected with the works and mines, and the informer said the defendant threatened that he would be discharged unless he bought at the shop; and also that when he went to the shop his name and that of the person he worked for were taken down. Mr. Spooner, the stipendiary magistrate, held that although he was paid money, yet the threat and the means taken to ascertain that he did spend part of his wages at the shop constituted the offence charged, and fined the defendant 10s., the highest penalty allowed by the statute, one-half of which went to the informer.

It may be remembered that a sad accident occurred not long since at the Grange Pit of the Old Park Company, in Shropshire, by the machinery coming out of gear whilst persons were descending the shaft. It was found that the brass in which the wheel worked was worn to 1-16th inch thick, and that the cogs, instead of a bite of 1½ inch, only lapped for 11-16ths to ¾ inch. Bailey, the engineman, said he had pointed out to Richard Bates, the engineer, that the brass was much worn, but that the latter told him to go on. Bates was committed for manslaughter, but after the evidence of Mr. Wynne, the Government Inspector, Mr. Justice Mellor put it to the jury if they could convict, and on their saying they could not the accused was discharged.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

AUG. 8.—There is little or no alteration to note in the state of the iron trade of Derbyshire, and business is not quite so bad as it is stated to be in the other iron making districts throughout the country, if reliance is to be placed on the reports and predictions of some of the trade circulars. A good deal of pig is being turned out, but stocks continue large; pipes, sheets, and hoops are in moderate request, and most of the large producers manage to keep their hands fully going. The most noticeable feature of the week has been a meeting held at the schools belonging to the Staveley Company, for the purpose of commencing an Accident Benefit Society, at which Mr. C. Markham, the respected managing director, presided. It may be stated that since the works were taken to by the company from the late Mr. Barrow, through Mr. Markham, something approaching 20,000, has been expended in schools and other buildings, for the accommodation of the workpeople and their families. Such munificence was not, until very recently at least, appreciated as might have been expected by a considerable number of the men engaged in the collieries, seeing that about ten months ago there was a dispute, on account of an endeavour to form a Miners' Union in the district. That having failed, and the men returned to work, the company have again shown their munificence, as well as their desire to aid their workpeople in every possible way. On Monday night Mr. C. Markham stated that, in aid of the funds of the society about to be formed, the company would subscribe 2000l., at the rate of 500l. per annum for four years. In addition, they would also subscribe to the fund after that time, by adding 25 per cent. to the amount of money subscribed by the members. Seeing that the company have in their service nearly 5000 persons, the value of the last-named gift will be really substantial, and it is to be hoped will be appreciated by those who will participate in the benefits of the fund thus established by the generosity of a company who have so frequently shown a more than usual interest in the persons who are in their employ, as well as in their families.

There is rather more doing in Coal to the metropolis, and the returns of the business done for the month of July show an increase on the quantity sent during June. As usual, the Clay Cross Company heads the list, being credited with no less than 25,957 tons; Ekeington, 9338 tons; Penitton, 7244 tons; Codnor Park, 6550 tons; and Staveley, 5617 tons. There is an increasing business being done in gas coal, a heavy tonnage of which is being forwarded by the Midland. Coke continues in active request, and a considerable addition is being made to the number of ovens, as it is found that the most profitable mode of utilising small coal is by converting it into coke. Sinking operations are being pushed forward in all directions

throughout the county, and, as a necessary consequence, buildings for the workpeople are being put up in great numbers. There is no alteration with regard to the dispute at Swadincote and Gresley, and there are now about 430 men out, preferring idleness with the Union and 5s. a week to full work and plenty.

The trade of Sheffield continues languid, few of the main branches being anything like busy. In South Yorkshire the Iron Trade is moderately good, there being a fair business doing in rails at one or two of the establishments, whilst in hoops, sheets, and bars there is no falling off. The enquiry for coal continues quiet, and the season, so far as regards steam coal, has not been anything like what was anticipated in the early part of the year; so far from that, there appears to be even a better demand for the soft coal than for the "hards." The export trade, from Hull and Grimsby in particular, having greatly declined, more particularly with Russia. To the cotton districts there is about an average tonnage being forwarded of engine coal and slack, but there has been rather more doing in Silicostones and the best qualities of the Barnsley seam. Coke continues in good demand.

The SHEFFIELD OUTRAGES COMMITTEE has just presented its report, addressed to Sir W. Erle, the late Chief Justice, and we have a repetition of the murderous revelations which have given to the town an indelible reputation. At the same time a number of the Trades Unions have been holding meetings, for the purpose of having a thorough cleansing, by whitewashing the members of any participation or sympathy with Mr. Broadhead and his unscrupulous tools. Notwithstanding the fact that they all declare their abhorrence at what has been done, there can be no doubt but that the perpetrators and instigators of the most deliberate murders and fearful outrages have many sympathisers in the Sheffield trades; whilst there are others, much higher in the social scale, who plead with a nauseating, sickly, sentimentality for the guilty wretches to be taken by the hand, and treated as good and really honest citizens. To show that there is plenty of the old leaven still existing, there is the record of the editor of the *Sheffield Telegraph*, who because he dared to denounce in befitting language the dreadful crimes which have made Sheffield infamous throughout the civilised world, was threatened to be made another victim. Singularly enough, the gentleman alluded to, Mr. Long, a man of undoubted ability, was, in a great measure, the cause of the Commissioner being sent down to Sheffield. To him the manufacturers of Sheffield, and those who desire to see the working man truly independent, are greatly indebted, and it is to be hoped that the very valuable services he has rendered, and the ability he has shown in bringing home the charges of murder, and kindred crimes, will be acknowledged and recognised in some substantial and enduring form, and that his efforts, and that of the press generally, will result in the purging of Sheffield of those fearful outrages for which it has become infamous, and terminate in giving individual liberty to the workman, by the putting down of combinations, such as have given to the name of the town such a terrible significance.

THE OAKS COLLIERY.—As the prospect of clearing the No. 1 shaft, which was sealed up shortly after the explosion, proceeds more than usual interest is taken in the proceedings by those having relatives in the workings. In the course of a few days, however, it is expected that a decision will be come to as to the searching for the bodies. On Tuesday evening the engineer in charge expected that the drift would be reached by Thursday night, as there was then not more than 24 yards of strata to get out altogether. Some interruption to the work has been caused by the damage done to the conductors, but the indication is so far satisfactory as to lead to the expectation that in a week or so the shaft will be cleared, so that the opening out of the workings will proceed without any delay. The pit shaft in which the men are at work continues free from gas, but as usual a considerable quantity continues to come up the 9-in. pipe, the pressure on the water-gauge being about 3 in. In anticipation of the shaft being entirely cleared out it is expected that a meeting of mining engineers will take place next week, when a decision will most likely be come to as to the course to be pursued in clearing the workings and recovering the bodies.

REPORT FROM MONMOUTH AND SOUTH WALES.

AUG. 8.—There is but little change to note in the Iron Trade during the past week; the improvement which took place at the commencement of the present quarter is generally admitted to continue to a very great extent unabated. The application made to Parliament by several of the railway companies for powers to raise additional capital having resulted in several instances in a satisfactory manner, it is expected that the same will have a beneficial effect on the home trade, although it may be but slowly. The enquiries from Russia are increasing, and a considerable quantity of railway iron is being sent to that country, but some uneasiness has been created in the minds of ironmasters and merchants as to the financial position of the empire, in consequence of a new loan having just been introduced. The orders from America are improving, although they cannot be said to be heavy, but still they are numerous, and it is believed that the American demand will increase in a much greater ratio month by month, although an immediate resuscitation is not anticipated. A fortnight ago it was announced in the *Mining Journal* that notice had been given to all the hands employed at the Blaiva Works. Since that time further information respecting the stoppage of the works at the expiration of the notice has been received, and there is now no fear of such being the case, as several parties have been going over and looking at these extensive works. Rather than stop them, it would be much better for the creditors to receive a very small amount, as closing the works entirely would prove not only a ruinous proceeding to the district, but to all concerned. In the Tin-Plate Trade a decided improvement has taken place, there being a larger demand for all descriptions, and the prices remain firm. A degree of dulness characterises the Steam Coal Trade, and proprietors and merchants still complain of the scarcity of orders from foreign markets, and the shipments to the continental houses are not equal to the corresponding period of last year. Employment at many of the collieries keeps rather irregular, some weeks being tolerably good, while others are slack, and the pits keep going three and four turns; but an improvement is confidently expected to take place before the expiration of the present month. Although there has not been that vitality in the trade proprietors desired, there has been a determination on their part not to resort to underselling, which is oftentimes had recourse to when there has been a stagnation for a long period. There is an average trade done with coasting buyers, and a slight increase is beginning to manifest itself in the local consumption.

The workmen employed at the Messrs. Brodgen's collieries, in the Ogmore Valley, have had a trip to Portcaw, where various amusements had been provided for them, and after thoroughly enjoying themselves they returned to their homes, highly delighted with the trip. It may not generally be known that the Ogmore Valley extends seven miles northwards from Tondy; the Rhonda Valley lies to the east, the Garw and Llynvi Valleys to the west, while the valleys of Neath and Aberdare lie further ahead. Two pits are being sunk for Messrs. Brodgen to the Aberdare steam coal seams, which are expected to open out great mineral wealth, and increase largely the output of coal. These pits are at present sunk 125 yards, and 125 yards, respectively, and the first workable seam is expected at 220 yards. The Aberdare Coal Company work a considerable quantity of coal from No. 2 seam, and there are other coal fields in process of development—Nant-Moel, Blaen-ogwr, Cae-du, and others, which will, in time, make the Ogmore Valley a thriving settlement.

Two colliers, named Seymour and Summers, have been summoned by the Ebbw Vale Company (Limited) before the Pontypool bench of magistrates for a breach of the colliery rules, in that they neglected to close a door in the Glynn Pit, by which danger was to be apprehended. The defendants were the last persons who came through the door, and as they each refused to close it, both of them alleging that it was the other's duty to do so, it was left open; but, as serious consequences were likely to have arisen from having the ventilation stopped, the company could not overlook the offence. As the charges were not pressed, the defendants were let off on paying 10s. each.

MR. WILLIAM CRAWSHAY, the well-known ironmaster of Cyfarthfa, Merthyr Tydfil, expired on Sunday night, at ten o'clock, at his seat, Caversham House, near Reading, in the 80th year of his age, having been born in 1788. The history of the Crawshay family is bound with that of Cyfarthfa, the ironworks at Merthyr, so long associated with Mr. Crawshay's name. The family lived in Yorkshire, and Richard was the first member of it who became connected with Cyfarthfa. He appears to have been the making of the concern. He is described as "a rugged Yorkshireman, keen witted, strong tempered, and blessed with that kind of iron will which brooks no opposition, but must force its way." He prosecuted his enterprise, and died a millionaire. Mr. Richard Crawshay was succeeded by his son William, the father of the gentleman who died on Sunday. At the time of Mr. Richard Crawshay's death the Cyfarthfa Works were jointly owned by him and the late Sir Joseph Bailey, and the late Lord Lianover's father, but long before his son's death their shares were bought up by him, who, at his death, bequeathed the whole of the works to the subject of our memoir, who was married three times, first to Miss Eliza Homfray, daughter of Mr. Francis Homfray, of Hyde, near Stourbridge, by whom he had one daughter and three sons; the daughter married the Rev. G. Thomas, of Ystrad, and the eldest son, William, was drowned at the Passage. Secondly, Mr. Wm. Crawshay married Miss Thompson, sister of Mr. Alderman Thompson, of Underleigh, by whom he had one son, Robert, who has for some time had the management of the works at Cyfarthfa, and four or five daughters. Thirdly, he was married to Miss Johnson, sister of Mr. Richard Johnson, of the Rhymney Works, by whom he has had one daughter, who is unmarried, and resides with her widowed mother at Caversham. The late Mr. Wm. Crawshay was connected with the iron trade of the neighbourhood of Merthyr Tydfil for a period extending over half a century. He had not lately actively participated in the trade during the latter part of this long period; but it is easily to be understood that a man of his habits, having done so much to give an impetus to the works when he entered into possession, would continue to give his son the benefit of his counsel at all times. When the Cyfarthfa Works came into the hands of the late Mr. Crawshay they very soon began to wear a different aspect, and were made highly productive. In 1819 there were six furnaces, and the average yield per furnace was 65 tons; in 1827 there were 11 furnaces, and the average yield 120 tons. The career of the late great ironmaster has been one of singular success, characterised by smart speculations and successful ventures. Like all men of strong individuality, his actions have carried with them the impress of a man above the ordinary stamp. Firm, even to the border of

stubbornness; bold, even to the margin of rashness, he has yet proved that he did not lack the truest and most generous impulses in his relation with the world; that his mind was not warped solely to the gathering of wealth, nor his life of action simply that of speculation. He started into life with two motives—honesty and perseverance. These are the indices to his policy, the causes of his success. When Austria and Russia menaced the asylum of the Hungarians the deceased was the first to step forward and head a list with 500l. to preserve inviolate their freedom. His connection with his workman has been a just one. If the men were taught not to expect unwise license and liberty, they also learned that justice between man and man, irrespective of position, would always be meted out to them. Of such a man it may well be said that he leaves behind him a mark for the instruction and guidance of future generations.

FOREST OF DEAN.—The Iron Trade continues to manifest the same buoyancy as during several preceding months; indeed, very great influx of orders to reach the Forest ironmasters, they would be placed in the unpleasant position of either refusing or not executing them for some time to come. The long depression in the money market affects in no way directly the state of trade. The only drawback hitherto shown, and that not manifestly, is the somewhat lowness of the price of iron. It was generally thought that as many good contracts had been received in other iron districts, the price would generally become better for the maker. At the Cinderford ironworks the trade has considerably increased, so much so that Mr. Crawshay has nearly completed a monster furnace, and fitted it with all the new appliances for the smelting of iron ore. There are now three furnaces in blast at these works, and it is intended that as soon as the last defect appears in either the newly-built one will be blown in. At the Sedwley Works there has been a slight slackness for the past week. This arose out of no scarcity of orders, but iron ore from the Brean side of the Forest. This deficiency has been now met, so that the full blast was put on a day or two ago. The Messrs. Gould Brothers are well supplied with orders. The price of Forest iron ranges from 2l. 10s. to 4l. 5s., delivered at Birmingham. A good quality iron is being dispatched at 4l. 2s. 6d., and delivered within a radius of the above place. As previously reported, the manufactured iron trade—which is but a medium of the iron trade here, and that being chiefly wire—is not so good as a few months since. A gradual depression has been showing itself in this branch for many months. With regard to the tin-plate branch, a great improvement has lately taken place. The masters were never in a better position than they are just now for orders. Every available hand is engaged, and the utmost pressure is put on to meet the demand.

The Coal Trade still continues remarkably brisk. The demand for Forest of Dean household coal is daily increasing, and proprietors have difficulty whatever in obtaining a ready sale. The prodigious quantities that are daily conveyed down the railway is indeed a matter of astonishment, and more especially when it is remembered that state of things has been going on for years. There is no lack either in the supply, sufficiently demonstrating the extent and quantity estimated in the Forest of Dean coal measures. It is true that some of these barely pay for working. On the other hand, if collieries in the district are payable in summer (and, of course, they are, or they would not be worked) they are very lucrative in the winter, when the price is fixed upon the price of coal. The singularity of such an arrangement as that made by the coal masters to lower the price of coal in the month of May is certainly open to some objection. It is said that the Lowry measure is not so valuable in the summer months, as the atmospheric influences during the heat of summer softens it, and thus the coal is deteriorated in value. Did the application rest with this measure there might be some feasibility in this reason, but since the reduction is applied to all the Forest measures, it seems a pity that the coal masters do not quash the rule alluded to. At one colliery in the Forest, where at least 150 tons of coal have been dug per day, the proprietor cares little or none whether his pit stands idle or otherwise for the very obvious reason that during the summer months, even without a cause, he gets 1s. per ton less for his coal. It will be seen, then, at this ratio, and in this case, 45l. per week, if the pit were properly worked, would be lost to the owner. So far as the principle of union goes, it is pleasing to see coalmasters thus agree together; but since the value of coal yearly becomes greater, the masters whose risks are very great, should not sacrifice their profit for the benefit of the merchant (who reaps the benefit of an arrangement), or the buyer, who does not know why coal should be lower in the summer, and higher in the winter, when it is not to be reduced to place at all. If this principle were carried to any length beyond the coal trade of the Forest of Dean, it is to be feared it would act most injuriously to labour and material. Some 50 trucks belonging to the Sunderland and South Wales Company are still, and have been for many weeks, detained on a siding near Cinderford. There is no indication whatever of opening the Forest of Dean Central Railway.

QUARTERLY STATEMENT OF BLAST FURNACES.

| Made up to July, 1867. | | | |
|---|----------------------------------|--------|-----------|
| CLEVELAND—MIDDLESBRO'. | | | |
| Name of works. | Owners. | Built. | In blast. |
| Easton | Bolekov, Vaughan, & Co. | 11 | 7 |
| South Bank | South Bank Iron Company | 9 | 7 |
| Clay Lane | Clay Lane Iron Company | 6 | 6 |
| Cargo Fleet | Swan, Coates, & Co. | 2 | 2 |
| Normanby | Jones, Dunning, & Co. | 3 | 2 |
| Ormesby | Cochrane & Co. | 4 | 1 |
| Tees | Gilkes, Wilson, Pease, & Co. | 4 | 3 |
| Middlesbrough | Bolekov, Vaughan, & Co. | 3 | 2 |
| Tees Side | Hopkins, Gilkes, & Co. | 2 | 2 |
| Linthorpe | Lloyd & Co. | 4 | 4 |
| Acklam | Stevenson, Jaques, & Co. | 3 | 3 |
| Newport | B. Samuelson & Co. | 4 | 4 |
| Clarence | Bell Brothers | 8 | 8 |
| STOCKTON-ON-TEES. | | | |
| Norton | Norton Iron Company | 4 | 1 |
| Thoraby | N. Whitwell & Co. | 3 | 3 |
| Stockton | Stockton Iron Company | 3 | 3 |
| Carlton | Bastow & Co. | 2 | 0 |
| WHITBY. | | | |
| Grosmont | T. and C. Bagnall | 2 | 2 |
| Glaiddale | Lonsdale Vale Iron Company | 3 | 2 |
| Total | | 82 | 63 |
| NORTH-EAST OF ENGLAND. | | | |
| DARLINGTON. | | | |
| Middleton | | 2 | 0 |
| South Durham | South Durham Iron Company | 3 | 2 |
| Ferry Hill | Ferry Hill | | |
| | Rosedale and Ferry Hill Iron Co. | 7 | 6 |
| BISHOP AUCKLAND. | | | |
| Witton Park | Bolekov, Vaughan, and Co. | 4 | 4 |
| Towlaw | Weardale Iron Company | 5 | 3 |
| Stanhope | Weardale Iron Company | 1 | 0 |
| CONSETT. | | | |
| Bradley | Consett Iron Company* | 4 | 0 |
| Consett | Consett Iron Company | 6 | 6 |
| Crook Hall | Consett Iron Company | 7 | 0 |
| * These are not likely to be blown again. | | | |
| CHESTER-LE-STREET. | | | |
| Birtley | Birtley Iron Company | 3 | 0 |
| SEAHAM HARBOUR. | | | |
| Seaham | Earl Vane | 2 | 0 |
| WASHINGTON. | | | |
| Wear | Bell, Hawks, & Co. | 1 | 1 |
| GATESHEAD. | | | |
| Felling | H. L. Pattison & Co. | 2 | 0 |
| NEWCASTLE-ON-TYNE. | | | |
| Jarrow | Palmer's Shipbuilding & Iron Co. | 4 | 3 |
| Elswick | Sir W. Armstrong & Co. | 2 | 1 |
| Walker | Loth, Wilson, & Bell | 3 | 0 |
| Wallasey | Palmer's Shipbuilding & Iron Co. | 2 | 0 |
| Tyne | Tyne Iron Company | 1 | 1 |
| MORPETH. | | | |
| Bedlington | Bedlington Iron Company | 2 | 0 |
| Total | | 61 | 26 |
| NORTH-WEST OF ENGLAND. | | | |
| Kirkless Hall | Wigan Coal and Iron Company | 5 | 5 |
| Carnforth | Carnforth Hematite Iron Co. | 4 | 3 |
| Barrow | Barrow Hematite Iron Company | 11 | 10 |
| Cleator | Whitehaven Hematite Iron Co. | 3 | 3 |
| Harrington | Bain, Blair, & Patison | 4 | 4 |
| Worthington | Worthington Iron Company | 6 | 2 |
| West Cumberland | Hematite Iron Company | 5 | 2 |
| Eastland Charcoal Furnaces, | | | |
| Back Barrow | Harrison, Ainslie, & Co. | 2 | 1 |
| Total | | 40 | 30 |

—Iron Trade Review. (To be continued.)

THE GOLD ORES OF CANADA.—The Canadians continue to display the liveliest interest in the development of their gold resources. Messrs. Wyckoff and Co., of Greenpoint, Long Island, have just been experimenting with ore from the celebrated Richardson Mine, in Madoc Township, Hastings County, Canada, West, and have obtained admirable results. The Wyckoff process, which has already been referred to in the *Mining Journal*, consists in first reducing the ore to the utmost possible degree of fineness, and then treating it in connection with mercury, with salt water and steam. It is claimed that in this manner a more complete union of the gold with the mercury is obtained than can be done by any other known process. About 160 lbs. of earth, taken from the crevices of the rock, were found to yield 18 ozs. of gold of 23 carats fineness, valued at 4l. per oz., which is equivalent to about 1300l. per ton of earth. The formation in which this gold is found is traceable over a tract of country about 80 miles in length by 50 miles in breadth. In another column of this day's *Journal* will also be found some particulars relating to another Canadian gold mining enterprise—the De Lery Gold Mining Company, from which it is considered that at a future time handsome dividends may be realised. This latter company has had many obstacles to contend with in consequence of the adverse opinions entertained by those on the spot, but it is considered that the reports of Messrs. Winchell and Hind remove all doubt as

to the value of the company's mines, more especially as that of the Mr. Hind's report is particularly favourable, and mentions the existence of sulphur of iron, argentic sulphide, galena, sulphate of lime, and manganese, which contain the precious metals in abundance. In consequence of the excitement created, efforts are now being made to obtain additional capital both in England and New York, for the development of adjacent properties.

FOREIGN MINING AND METALLURGY.

The imports of pig, free of duty, into France in the first five months of this year amounted to 15,523 tons; in the same period of 1866, they exceeded 33,000 tons. The imports with payment of duties, which had been only 17,000 tons in the first five months of 1866, rose to 51,600 tons in the corresponding period of this year. It follows, as regards pig that the total imports of the first five months of 1867 presented an augmentation of 34 per cent., as compared with the corresponding period of last year. Of iron and plates the total imports, free of duty, in the first five months of 1867 amounted to 19,568 tons, while in the corresponding period of 1866 they were 22,757 tons; the quantity imported with payment of duties in the first five months of this year was 3150 tons, as compared with 2700 in the five corresponding months of 1866. The total imports during the first five months of this year show a diminution of 3.6 per cent. as compared with the imports free of duty, taken alone, was 14 per cent. It is remarkable that the Committee of French Foremasters that this reduction coincides with a considerable fall in the sale prices, and that it cannot in consequence be attributed to the influence of imports duty free. The exports by warrants of pig-iron plates amounted in the first five months of 1867 to 22,000 tons, as compared with 72,750 tons in the corresponding period of 1866. The direct exports in the five months of 1867 were 6234 tons, and in the first five months of 1866, 9164 tons. The exports by warrants thus experienced a diminution of 28 per cent. in the first five months of this year, while the direct exports fell off 41 per cent. These figures exactly represent the state of the market. The quantities of iron imported into France during the first five months of this year amounted to 109,800 tons, as compared with 169,700 tons in the corresponding period of 1866, showing an increase of 15 per cent. this year. This augmentation is wholly from the increased deliveries of minerals from Spain and Algeria. Southern of France Railway Company has just ordered 2000 tons of Bessemer steel rails from the Terre-Noire Company at 12l. 13s. 6d. per ton, delivered at Cette; the price at the works would thus be about 12l. 14s. per ton. Of France Railway Company has just ordered 30,000 tons of iron rails from the house of Wendling at 7l. 8s. per ton, taken at Styling; a guarantee of three years is given. The Paris, Lyons, and Mediterranean Railway Company has ordered at the Sireuil Works 1000 tons of rails, to be manufactured after the process of M. Pierre Martin; the price per ton is 12l. 16s. at the works. The Denain and Anzin Company has just carried to 7l. 12s. per ton the price of the first-class merchants' iron, which it delivers for commercial purposes on the basis of the Mouslaux Mings Company will hold a meeting, Aug. 17, at Paris.

The state of the Prussian metallurgical markets has not experienced any very great variation during the past month. It had been hoped that prices would advance, but they have rather presented a slight downward tendency. The hopes which producers had conceived of the solution of certain political questions have been deceived, and the demand which prevails is inferior to the offers made. Stocks are increasing, as the proprietors of some blast-furnaces profited from the establishment of the gauge banks in 1866 to pledge large quantities of pig on mortgage. They are now to keep their blast-furnaces lighted during the war, but it had the same consequence of sensibly augmenting an already important stock. The return of confidence, after the close of the war, the first care of the Prussian officials was to relieve themselves from their obligations, and to diminish the stock as much as possible; they offered, then, pig on the market at prices below the level of previous offers. It is to be remarked that when goods are offered at a cheap rate, buyers generally hasten to reduce prices still further; it is likely, however, that prices will experience a greater depreciation, as the stock has already been somewhat diminished. Another cause which has rendered difficult the position of producers of iron is the considerable advances in wages which arises from the high rate of miners' wages, which every day display a tendency to advance rather than to recede. The cost price of pig leaves foreign producers only a very limited profit; nevertheless, they are far from being discouraged, and they are everywhere working with a zeal which proves that their confidence is far from being shaken. The annexed figures show the progress which metallurgical industry has made in Prussia during the last 30 years:—

| Year. | Pig. | Rolls of iron and rails. |
|-------|---------|--------------------------|
| 1837 | 82,137 | 58,721 |
| 1846 | 96,756 | 129,666 |
| 1856 | 320,719 | 274,411 |
| 1861 | 740,322 | 298,689 |
| 1865 | 740,322 | 404,294 |

It may thus be affirmed that the iron trade of Prussia has fully kept pace with the progress made by similar industry in France and Belgium.

It is believed that Belgian metallurgy is on the point of obtaining new and important outlets in the far east. The transit to Persia and the extreme east is now made, for the most part, by way of Trebizonde and Erzeroum to Tauris; but the route is long, costly, and difficult. The Russian Government is, it appears, desirous to attract this traffic over its territories; and it was this object that the port of Poti, situated at one end of the Black Sea, was created, in some measure a few years since, and Russia has now decreed a railway intended to unite Poti to Tiflis. This line is the first section of the great Indian route, which is to run from Tiflis to Tauris, via the Ararat, towards the Persian Gulf, and the Peninsula, following the telegraphic network already established in these districts. Last year two young Belgian engineers made an exploratory journey in the North of Persia, in order to examine the means of forming a line which must precede the establishment of a line of railway from Tiflis to Tauris. Belgian houses have negotiated the supply of all the plant required for the proposed line from Poti to Tiflis; and the syndicate of Belgian firms, which, in all probability, obtain this important affair. While the State of Persia is thus about to be united to the East, and while Belgium is making efforts to promote this object, other enterprising Belgians have attached their efforts to the Persian empire, and several steamboats intended for the navigation of the Euphrates, between Bagdad and Bassorah, and on the Persian Gulf, have been constructed by the Cockerill Company; all the plant of this extensive enterprise has just arrived at Antwerp, in order to be embarked for Bassorah. It is also proposed to send out to Kirmanchahr a whole sugar manufactory, concession of which has been obtained from the Persian Government. The hope of the young king of Belgium, who takes much interest in the development of Belgian commerce and industry in the extreme east, are thus in a fair way of realisation. The position of the Belgian iron trade has for the present not materially improved. The Belgian sugar trade is expected to supply shortly with important orders for coal, but for the present business is as quiet as possible, as the stock continues to increase, although at present the extraction is limited many collieries being only worked four days per week. Prices, although maintained upon the whole, are very variable; this was shown in an adjustment which has just taken place with reference to the coal required for the Belgian State railways. The lowest tender for the coal required for the lines on the same occasion was submitted by the Bousau Colliery; the terms were 17s. 6d. per ton. The Lige General Water Conduit Company will pay, Dec. 1, second dividend for the exercise 1866-7, or 2l. per share. The Patience and Beaune Collieries Company will pay, August 16, the dividend for the exercise 1866-7, or 1l. 6s. per share. Meetings are announced as follows:—Marsenne and Couillet Company, Aug. 8, at Brussels; Zône Forges Company, Aug. 8, at Zône; and Falmuc Collieries Company, Aug. 13, at Courcelles.

Some transactions have been concluded in Chilean copper at Harrogate, at 69l. 8s. and 69l. 10s. per ton; the affairs which have taken place do not, however, present much importance. On the Paris and Marseilles markets, and on the various German markets, affairs are very limited, and prices are without change. Tin has slightly retrograded on the Dutch markets; transactions in Banca have been limited to a few hundred bags at 53 fls., the market closing at 52 1/2 fls. Billiton remains without very important transaction, at 52 fls. At Berlin, Cologne, and the other German markets, tin has been dealt in currently at previous rates, and the other German markets have shown little animation, and the article has been maintained nearly nominally at previous quotations. At Paris, Banca has been quoted at 96l., Straits at 91l., and English at 91l. per ton. No change has occurred to lead, the orders received being of too little importance to provoke a revival in the article. In Germany lead readily maintains its value, but this firmness arises more particularly from the fact that the stock at the works is generally inconsiderable, as, upon the whole, the demand is maintained by requirements of cast-iron, and on several markets does not exceed the daily requirements of the market. On the French markets little business has been done, and the price of affairs has been rather feeble; at Paris, rough French and Spanish lead has made 19l. 16s. per ton. The Breslau market remains firm, although there has been little activity in transactions; the stock of disposable goods being, however, very limited, it would be difficult to do business below the rates previously paid; the Godulla mark, which is much sought after by consumers, is in part scarce on the market, and at present the production of August, and also that of September, are engaged; it is to these special circumstances that the favourable tone of the article on the Breslau market is attributable. At Hamburg the demand for zinc leaves a good deal to be desired; at Paris, rough Silesian is quoted nominally at 21l. 4s., and zinc from other sources 20l. 15s.

SULPHUR ORE MINES (IRON PYRITES) NEAR MEGGEN.

[FROM WESTPHALIA.]

When we published our article in No. 1661 of the *Mining Journal*, we were, of course, prepared to meet with a refutation, or, at least, with a trial of refutation, of the allegations we made in that article. In the meantime, No. 1661 and No. 1665 have really brought two articles from the other side, so that the question is now whether or not they can be considered as a refutation, or, at least, as a trial of such refutation.

As to the article in No. 1664, it is hardly anything else but an extract of the statements contained in the English prospectus of the Siegena Sulphur Mining Company, which is here presented to us in another vessel; whoever has granted it, the trouble carefully to compare the article with that prospectus must be in fact, to be so. But still it has one virtue, and a very strong one, in the next number, out the prospect of a capital article, which is to appear in a refutation, or, at least, a trial of refutation? The answer is very easy to be given. Just consult the article in No. 1661 with the article in No. 1665, and you will see directly that the Siegena Sulphur Mining Company in No. 1665, and you will see directly that the Siegena Sulphur Mining Company in No. 1665, has even not any solid trial to do as to what has been done instead? He has, in the main, been pleased to do as the assertions contained in the English prospectus alluded to, and to give us something like a bombastic geological discourse; for what purpose, he may know

THE OVENS GOLD QUARTZ MINES COMPANY (LIMITED).

Registered with Limited Liability, 25th April, 1867.
Capital £80,000, in 30,000 shares of £1 each, fully paid on allotment, of which shares 6000 are reserved as part payment to the vendor for the estate. 2500 are already applied for, and the remaining 21,500 will be allotted to the public according to priority of application.

CHAIRMAN.
The Hon. JAMES TOBIN, Neville-street, Onslow-square, S.W.
BANKERS—The London and County Bank, 21, Lombard-street, and town branches.
BROKER—John Inchbald, Esq., 2, Copthall-court, City, and Stock Exchange.
OFFICES—134, FENCHURCH STREET, CITY.

This company is formed for the purpose of working the famous estate, called "The Ovens," on the promontory known as The Ovens Gold Fields, jutting out five miles into the Atlantic Ocean, near Lunenburg Harbour, Nova Scotia. Thirty-three lodes of auriferous quartz have already been discovered on the property, yielding silver as well as gold, assays of which, by Messrs. Johnson and Matthey, Mr. Squires, and Mr. Robbins, prove the average yield to be greater than that of any other gold mines yet introduced to the public.

The gold mines of Nova Scotia are now making larger returns per man per annum than any other gold mines in the world, and the directors submit the following certificate of the Chief Commissioner of Mines of Nova Scotia, as the best evidence of the prospect of success of this company.

CERTIFICATE.
"I have no hesitation in saying, from my own knowledge and personal inspection, that one of the most inviting fields for the successful prosecution of gold quartz mining is 'The Ovens Mining District.' The gold found in the surface alluvium, and the fine specimens of gold-bearing quartz, which I purchased and sent to the Paris Exhibition, are conclusive evidence of the rich yield that will be realised from capital invested in the Ovens under careful management."
P. S. HAMILTON, Chief Commissioner of Mines.
"Halifax, May 15, 1867."

Applications for prospectuses and shares may be made to the directors, bankers, and brokers. Reports, views of the estate, and a quantity of gold quartz, with assays of same, may be seen at the offices, 134, Fenchurch-street; also at Mr. Robbins's, 372, Oxford-street, W.

THE NEVADA LAND AND MINING COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, by which the liability of the shareholders is strictly limited to the amount of their shares.
Capital £30,000, in 20,000 shares of £1 10s. each.
Deposit on application 2s. 6d. per share, and 2s. 6d. on allotment.
Further calls not to exceed 5s. per share, at intervals of not less than three months.

DIRECTORS.
(The following gentlemen have consented to be nominated provisionally as directors, to receive subscriptions and to act until a meeting of shareholders can be called for electing a board.)
CHARLES MARETT, Esq., 56, Chancery-lane.
EDMUND L. VENT, Esq., 4, New-square, Lincoln's Inn.
FRANCIS SNOWDEN, Esq., 1, Dr. Johnson's buildings, Temple.

CONSULTING ENGINEER.
J. Arthur Phillips, Esq., 2, Bond court, Walbrook, E.C.
BROKER—John Inchbald, Esq., 2, Copthall-court, Throgmorton-street, and Stock Exchange, London.
SECRETARY (pro tem.)—J. A. Robertson, Esq.
BANKERS—The Imperial Bank, Lombury.
TEMPORARY OFFICES—34, CANNON STREET, CITY, E.C.

PROSPECTUS.

This company has been formed in accordance with the recommendation of the committee of shareholders at the recent general meeting of the Washoe United Consolidated Gold and Silver Mining Company (Limited), for the purpose of taking over, developing, and working the valuable properties of that company in the State of Nevada.

It is proposed that this company shall purchase all the properties of the Washoe Company, free from incumbrances, for £20,000.

These properties consist of—

First.—The estate at Washoe, consisting of about 9000 acres of land, the greater part already cleared for cultivation; a canal of great value for irrigation, as well as affording a supply of water-power capable of driving several mills; ten or twelve houses and buildings, including a quartz-crushing and silver reduction-mill of the best construction, with machinery complete, driven by water from the canal, and capable of reducing from 30 to 40 tons of ore per day; 600 acres of wood land, supplying fuel in a locality where it is scarce and expensive; to say nothing of the mine at Washoe, upon which a large sum has been expended.

Second.—The entire interest (except about 1-27th) in the Whitmore Mine, near Star City, Humboldt district. This mine is situated on the well-known Sheba ledge or vein of silver ore; and, from all accounts, and from the working of the adjoining mines, is considered certain to prove a silver mine of great value. Out of the 870 ft., which is the estimated length of the tunnel required to reach the ledge, a distance of 472 ft. has already been driven, a tramroad laid down, and a ventilating shaft constructed. Contracts can be made for driving the remainder of the tunnel at \$25 per foot, which, with incidental expenses, will be covered by an outlay of about £3000.

These properties cost the Washoe Company upwards of £116,000, a large proportion of which has been applied in developing and permanently improving them. The Central Pacific Railway is already open for a distance of 94 miles from Sacramento, and it is expected the works will be completed to the immediate neighbourhood of the Washoe property, an additional distance of about 60 miles, during the present year. In its further course this railway will pass within a few miles of the company's Whitmore Mine. These circumstances can hardly fail to greatly enhance the value of both properties.

The directors, before issuing this prospectus, have satisfied themselves from sources of information to which they have had access, independent of the late management, that the real value of the property far exceeds the sum of £20,000, proposed to be given for it; and they have reason to believe that returns can be at once obtained either by letting the mill at a fixed rent or by crushing ore from others mines on the company's account, while portions of the land may be sold for building purposes in the neighbourhood of the railway. Profits may also be realised from the cultivated portions of the land and from the sale of wood. It will be observed, therefore, that the only probable outlay required on the part of the company will be for prosecuting the works at the Whitmore Mine. This mine consists of a claim of 1500 ft., in the very centre of the mountain range through which the Sheba ledge passes, and the ledge has been cut by the owners of the De Soto Mines, immediately adjoining the Whitmore, while on the other side of the Whitmore the American Basin Company are vigorously pushing their works. An idea of the yield of the Nevada Silver Mines will be obtained from the published returns relating to the mines working on the Comstock ledge, which is considered very inferior to the Sheba in richness, but has been worked on for a longer time.

Results of some assays of the ores from the Whitmore and De Soto Mines are given below.

To show the estimation in which the prospects of the present company are held by persons acquainted with this mine, it may be stated that the directors have received from Mr. J. J. Dunn, the late superintendent of the mine, (who is interested in the other 27th of 10), an offer to subscribe for 1000 shares in this company.

The directors deeming it of much importance to have the benefit of the advice and assistance of a practical mining engineer and metallurgist, well acquainted with Nevada and its mining system, have made arrangements for that purpose with J. Arthur Phillips, Esq., who combines in a special manner these qualifications; the map, supplied by Mr. Phillips, will give an accurate idea of the position and extent of the properties to be purchased.

The capital has been fixed at £20,000, to provide a margin in excess of probable requirements, but a very moderate sum from the Washoe property would render it unnecessary to call up more than £1 per share.

The directors will receive no remuneration except such as may be voted by the company in general meeting; and the expense of the London establishment in other respect need not, it is believed, exceed £250 per annum.

The Articles of Association expressly provide that this company shall not be proceeded with unless at least two-thirds of the capital be subscribed for within two months after incorporation, nor will the scheme be prosecuted unless an acceptable contract can be concluded with the Washoe Company for the transfer of their undertaking and property; but in either of these cases no allotment of shares will take place, and the whole of the deposits will be returned, less the mere expenses of registering the company, circulating the prospectus, &c., such expenses not to exceed in any case 150s.

This company having been formed by members of the Washoe Company for the sole purpose of preserving their own and their fellow-shareholders' interests in the property, it is unnecessary to explain that no promotion money or other outlay of that kind will be paid or payable to any person.

As soon as the allotment is made a meeting of shareholders will be convened for the purpose of electing a permanent board in the place of the present directors, who are acting provisionally.

A large number of shares having been subscribed for by shareholders in the Washoe Company, the remainder are now offered to the public, whose attention is called to the fact that the shareholders in this company will, for the very moderate amount of capital to be subscribed by them, reap the benefit of the outlay made by the Washoe company, while the experience gained under the former management will be of considerable assistance in the conduct of this company's affairs.

The Memorandum of Association accompanies the prospectus. The articles (adopting the form provided in the Companies Act of 1862, with a few necessary variations) may be inspected at the company's temporary offices, or a copy will be sent to any applicant on receipt of two stamps for postage.

Application for shares to be made in the usual form. The deposit of 2s. 6d. per share may be paid to the Bankers or remitted to the Secretary.

Prospectuses can be had from the Bankers, Broker, or Secretary at the temporary offices of the company.

ASSAYS MADE BY THE BERRY PORT SMELTING COMPANY, PEMBREY, CARMARTHENSHIRE.—DEC. 26, 1865.

| WASHOE SILVER ORES. | | | |
|-------------------------------------|---------|------------------|---------|
| | Silver. | Gold. | Copper. |
| Whitmore, Class 1.....ozs. 1069 1/4 | about 1 | about 0 per ton. | |
| " " 2.....427 | 3 1/2 | " | " |
| " " 3.....525 | 3 1/2 | " | " |
| De Soto, from tunnel.....ozs. 1 1/4 | about 2 | per ton. | |

The original report of this assay can be seen at the office of the company.

ROBERT LIBBY AND SON,
MINE AND SHAREDEALERS, &c.,
CAMBORENE, CORNWALL.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the HALLENBEAGLE MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 31st day of July last, presented to the Vice-Warden of the Stannaries, by Edward King, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in Cornwall aforesaid, on Wednesday, the 14th day of August inst., at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitors, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitors, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 10th day of August inst., and notice thereof must, at the same time, be given to the petitioner, his solicitors, or agent.

R. W. CHILDS AND RATTEN, 25, Coleman-street, London (Solicitors of the Petitioner);
JOSEPH ROBERTS, Truro, Cornwall (Agent of the said Solicitors).
Dated Truro, Aug. 2, 1867.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the CRENVER and WHEAL ABRAHAM UNITED MINING COMPANY (LIMITED).—TO BE SOLD, BY PRIVATE TENDER, with the sanction of the Court, in ONE LOT, all the INTEREST of the ABOVE-NAMED COMPANY in the several SETTS or GRANTS under which its mining operations have been carried on, together with the whole of the valuable MACHINERY and effects, now being at the CRENVER and WHEAL ABRAHAM UNITED MINES, in the parish of Crowan, within the said Stannaries, and comprising—

ONE 30-in. cylinder pumping ENGINE, 11 ft. stroke, with fittings complete.
ONE 30-in. double acting winding ENGINE, 8 ft. stroke, with fittings complete.
ONE 80-in. cylinder ENGINE, 10 ft. stroke, with fittings complete.
ONE 30-in. cylinder double acting winding ENGINE, with fittings complete.
ONE 70-in. pumping ENGINE (new), 10 ft. stroke, with fittings complete.
ONE 26-in. double acting winding ENGINE, 6 ft. stroke, with fittings complete.

ONE 14-in. horizontal ENGINE, 2 ft. stroke, with fittings complete.
Two saw mills, circular and other saws, underground cisterns, steam hammer, screwing machine, and the whole of the smiths' and carpenters' tools, also a large variety of articles and materials in the fitting-up shop, a large quantity of shaft tackle, shovels, pulleys, and stands, also a large quantity of rods, and rod timber, hydraulic lifting and other jacks, borers 3 in. iron rod, several thousand fathoms of chain, ladders and skip rope, iron and brass stands and weights, several tons of iron, brass, lead, steam whelm and horse kibbles, new and old rope, barrows of different kinds, plumbers' house and fixtures, &c., together with the account-house furniture, and a variety of other articles and effects in general use at mines.

Tenders for the above will be received at the Registrar's office, Truro, until the 17th day of August instant, and applications to inspect the same may be made to the Officer of the Court in charge thereof on the mines; or to HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.
Dated Registrar's Office, Truro, August 8, 1867.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the NORTH PORTHILL MINING COMPANY.—By an Order made by His Honor the Vice-Warden of the Stannaries in the above matter, dated the 7th day of August instant, on the petition of George Rickard, of the parish of St. Tudy, within the said Stannaries, a shareholder of the said company, it was ORDERED that the said NORTH PORTHILL MINING COMPANY should be WOUND-UP by this Court under the provisions of the Companies Act, 1862.
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro, Cornwall.
Dated Truro, August 7, 1867.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL NORTH GRYLLS MINING COMPANY (LIMITED).—By an Order made by His Honor the Vice-Warden of the Stannaries in the above matter, dated the 7th day of August instant, on the petition of William Thompson Adcock, of the City of Worcester, a contributory and also a creditor of the said company, it was ORDERED that the said WHEAL NORTH GRYLLS MINING COMPANY (LIMITED) should be WOUND-UP by this Court under the provisions of the Companies Act, 1862.
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro, Cornwall.
Dated Truro, August 7, 1867.

In Chancery.

GREAT TYWARNAILE MINE, IN THE PARISH OF ST. AGNES, CORNWALL.
MESSRS. WARE AND SON WILL SELL, BY AUCTION, at the above mine, on Thursday, the 22d day of August inst., at Twelve o'clock at noon,

THREE SPLENDID STEAM ENGINES, &c.,

COMPRISING
LOT 1.—(Gardner's) 70 inch cylinder ENGINE, 10 1/4 ft. stroke, with THREE BOILERS, complete.
LOT 2.—(Haynes's) 70 inch cylinder ENGINE, 9 1/2 feet stroke, with TWO BOILERS, complete.
LOT 3.—A 10 inch cylinder ENGINE, 9 feet stroke, and ONE BOILER, with CRUSHER attached.

Also about thirty other lots, consisting of pumps, plunger poles, working barrels, strapping plates, crab winch, &c.
Particulars and conditions may be had of Messrs. FLUX, ARGLES, and RAWLINS, 1, East India-avenue, Leadenhall-street, London, Solicitors; of Messrs. MACKENZIE, TREHERNE, and TRINDER, Gresham House, Old Broad-street, London, Solicitors; or of Messrs. HODGE, HOCKIN, and MARRACK, Truro, Solicitors; or of the Auctioneers, Exeter.—August 1, 1867.

SALE BY AUCTION, AT REGENT IRONWORKS, BILSTON.

MR. J. GETTINGS has received instruction from the trustees of Messrs. A. BEARD and SONS, and T. S. SMITH and Co., TO SELL the whole of their STOCK and MATERIALS, on Monday and Tuesday, the 19th and 20th, and on Monday, the 26th August.

The STOCK consists of 190 tons of first-class PIG-IRON; 500 tons of NEW and OLD CASTINGS, WROUGHT and SCRAP IRON, chilled and grained ROLLS, bar and billet ROLLS; large LATHE, with speeds, poppets, &c.; TWO small direct-action ENGINES; CIRCULAR SHEARS; 150 tons FLOOR PLATES, scales and weights; AVERY'S WEIGHING MACHINE.

Puddlers' and millmen's tools, blacksmiths' tools, bellows, anvils, quantity of steel, bull dog and tap binder, calcined pottery, mine, fire-bricks, and clay. About 10 tons of hot and cold neck GREASE; about 20 tons of best and common OILS; quantity of Russian TALLOW; 6 in., 4 1/2 in., and 3 in. WAGONS, CARTS, and TROLLEYS; 14 WOOD and IRON CANAL BOATS; PUDDLING MACHINES.

The whole of the OFFICE FURNITURE, FIRE-PROOF SAFES, and a large quantity of sundries.

Sale to commence at Eleven o'clock each day, to the minute.
Catalogues may be had on and after Tuesday, 13th inst., from the Auctioneer, Albert Cottage, Bilston; and from Messrs. BROWN and FELLOWS, Solicitors, Bilston; from Messrs. BUCHANAN, LEWIS, and LEWIS, Solicitors, Walsall; and Mr. G. T. GREEN, Accountant, 19, Temple-street, Birmingham.

IMPORTANT SALE OF A SLATE AND SLAB QUARRY, WITH MACHINERY, PLANT, TRAMWAY, &c., and a quantity of SLABS, AT PENMACHNO, CARNARVONSHIRE.

MR. W. DEW WILL SELL, BY AUCTION, on Saturday, the 31st day of August, 1867, at Three o'clock P.M., at the Queen Hotel, Chester,

THE HAFODWYD SLATE AND SLAB QUARRY, WITH MACHINERY, PLANT, TRAMWAY, &c., situated at PENMACHNO, CARNARVONSHIRE, and distant four miles from the Bettwa-y-Coed Station of the London and North-Western Railway.

The surface contains 4154. 28. 13P., and from reports made by several gentlemen of undoubted experience and ability, the slate formation underlies the whole of it. It is held on a lease for a term of 21 years, from the 24th March, 1860, with power to renew for a like term on payment of the sum of £300. The royalty is moderate, being 1-15th, and the dead rents are as follow:—£10 per annum for the first five years (now expired), £20 per annum for the second five years, £30 per annum for the third five years, and £50 per annum for the last six years, such dead rents to merge in the royalty.

The quarry has been partially opened and worked, producing slabs of good size, and very suitable for all purposes; but, owing to inadequate capital, the local company were unable to carry out fully the intention of developing it.

The Llanrwst branch of the London and North-Western Railway is now extended to Bettwa-y-Coed, four miles from Penmachno, and the same company have made a survey from Bettwa through the estate, and within 200 yards of the quarry. There is ample water-power; and it is believed that a moderate capital would suffice for developing a large and profitable quarry.

The estate has upon it an excellent MANSION, beautifully situated, and this, together with shooting and fishing, could be arranged for on easy terms (the present owner not residing there), affording an opportunity seldom met with of combining business and pleasure. The PLANT and MACHINERY consists of a WATER-WHEEL 16 feet diameter, TWO SAWS, and ONE PLANING MACHINE, a large quantity of TRAM RAILS, IRON WAGONS, &c.

The purchaser of the lease to have the option of taking the plant, machinery, &c., at a valuation, otherwise they will be sold in separate lots. A quantity of slabs will be sold at the same time as the quarry.

For catalogues and other particulars apply to Mr. MARTIN SMITH, Vale-street, Denbigh; and to the Auctioneer, Wellfield House, Bangor.
To see the property enquire at the Horse Shoe Inn, Penmachno.

AXTON LEAD MINE, FLINTSHIRE.

IMPORTANT SALE OF EXTREMELY VALUABLE (nearly new) LEAD ROPE, PUMPS, WORKING BARRELS, CAPSTAN, BOULDER, and other PLANT and MACHINERY at the above works, either together or in two Lots.

N.B.—Axton Lead Mine is situated near the village of Llanas, on the road from thence to Trelogan and Holywell, and is within easy distance from Holywell, Mostyn, and Prestatyn Stations, on the Chester and Holywell Railway.

MESSRS. CHURTON AND ELPHICK respectfully announce that they have been instructed by the Official Liquidator in BANKRUPTCY, upon the premises, the AXTON LEAD MINE, Llanas, Flintshire, on Wednesday, August 14, 1867, commencing at One for half-past One o'clock, in the lots set forth in the printed catalogues of sale, or in the order and in such order as the Auctioneers may decide upon at the time of sale, subject to such conditions as will be then produced, the whole of the plant and machinery.

MACHINERY, PLANT, AND UTENSILS.

Connected with the above lead mine, the whole of which must be paid for cash, and removed entirely at the expense of the purchasers.
Comprising a very superior (nearly new) PUMPING ENGINE, by Locomotion, Son, Cornwall, 60 in. cylinder, 80 ft. beam, and 9 ft. stroke, in thorough working order, all the working parts being bright, together with the air pump, Ashlar foundations, beams, floors, staircases, and other erections, and long pipes, &c. A very excellent 20 in. cylinder horizontal WINDING ENGINE, with fly-wheel, wrought-iron crank and axle, driving gear, cone for rope, eccentric rod and shaft, holding down, &c. TWO first-class cast-iron BOILERS, each 30 ft. by 7 ft., with furnaces, fire-bars, doors, &c., together with the whole of the steam and supply pipes, valves, &c. Very large and powerful deal capstan, and framing. Capital hempen capstan rope, 150 yards, iron rails and sleepers; kibbles; double purchase winch, with rope pulley, &c.; upwards of 150 yards of 17 in. pumps and working barrels; 10 pieces; pitch pine main rods, 8 in. in diameter, 100 yards of 10 in. horse whinney and pit head of 100 yards of iron rails; 40 yards of 4 in. 100 yards of red deal ladders; 80 yards of Norway pole ladders; chains, pulleys of smithy and joiners' shop; together with the entire remaining plant, utensils, and machinery.

N.B.—The mine agent, Capt. Evans, or Evan Evans, in care of the works, show the property.
Catalogues may be had at the Inns in the neighbourhood; from ELLIOT, Esq., the Official Liquidator, Birmingham; from Messrs. BRAD, BRAD, and BEALE, Solicitors, 10, Park-street, Westminster, and Birmingham; and Messrs. CHURTON and ELPHICK, Auctioneers, Whitechurch (Shropshire), Chester.

IMPORTANT SALE OF VALUABLE LEAD MINE, AND MINING MATERIALS, AT CAYLAN MINE, IN THE PARISH OF LLANBYNNAL, FLINTSHIRE.

MR. DAVID JONES (of Machynlleth) has, on Wednesday, August 21st August, 1867, all the valuable

MACHINERY PLANT, AND MATERIALS.

Of the above Mine, comprising WATER WHEEL, 20 ft. diameter, 3 ft. and two cranks, with connections; CRUSHING MILL, complete; and connections and rods; round budding rods; round connections with water-lifting machines, sundry rods and connections, and a royalty rent.

PLANT.—About two miles of iron rails, three wagons for ditto; mine smiths' tools, shovels, ropes, and sundry stores; beam and weights; whole of the office furniture, comprising iron and other bedsteads, straw mattresses, feather beds, counterpane, washhand stands, with a bedroom ware, square table, two round ditto, kitchen table with chairs, two cupboards, fenders, two sets of fire-irons, table cloths, and weights, knives and forks, spoons, and hand saw, &c.
For further particulars apply to the Auctioneer, Machynlleth.
The sale to commence at Eleven o'clock.

CUMBERLAND.

VALUABLE ESTATES AND ROYALTY FOR SALE.

MR. PORTER KITCHIN WILL SELL, BY AUCTION, at the Black Lion Hotel, Whitehaven, in the county of Cumberland, together or in two Lots—

LOT 1.—THE FREEHOLD ESTATES called HOLEBECK and RATTEN, situated in the parish of Arlecion, in the county of Cumberland, consisting of a suitable DWELLING HOUSE, TWO COTTAGES, FARM BUILDINGS, 142A. 1B. 0P. of LAND, more or less, let from year to year to Mr. Crosthwaite, at the low rental of £150 per annum. This lot will be sold to a reservation of the minerals and all necessary powers to work the same.
LOT 2.—THE MINES and MINERALS under 104A. 2B. 3P. of the above estate. This lot is subject to a mining lease for 21 years from the 11th March, 1853, at a dead rent of £100 per annum, and a royalty rent of 1s. 2d. per ton of 30 cwt. of iron ore—the dead rent merging into the royalty rent.
The estates are very compact, and the farm-buildings are within five minutes' walk of the Frizington Station of the Whitehaven, Cleator, and Egremont way; and the River Ehen, which abounds with fish, forms part of the estate boundary.

The views from some parts of the estate are very fine, commanding the of Ennerdale and the mountain ranges of Eboracle and Kinniside, and are several sites admirably adapted for building purposes.

The royalty is believed to be a very valuable one, and is expected to be large deposits of iron ore, the iron ore mines on the adjoining estate are very productive, and the famed Parkside High House and Birks Mine situate near the boundary of the royalty.
The tenant will show the estate, and printed particulars and conditions of sale, with a plan of the estates and royalty, may be obtained on application to the auctioneer, or to Mr. M. KELVIN, solicitor, Whitehaven.
Whitehaven, 1st August, 1867.

ALSTON, CUMBERLAND.

FOR SALE, BY PRIVATE BARGAIN, the WHOLE INTEREST of the present shareholders in

BIRCHY BANK MINE.

The take extends in length 600 fathoms adjoining the Rodderdun Mill Company's ground on the west, and in breadth 20 fathoms north of the vein, and 20 fathoms south of the south vein.
Application to be made to Mr. JOHN PEAR, Mining Agent, Alston; or INGLEDEW, Esq., Solicitor, Dean-street, Newcastle-on-Tyne.—August 1, 1867.

NORTH STAFFORDSHIRE.

LEASEHOLD INTEREST IN IMPORTANT IRON AND COAL WORKS (Wholly, or in part, as may be agreed on).

FOR SALE, BY PRIVATE CONTRACT, all those IMPROVED WORKS, known as the—

FENTON PARK IRON AND COAL WORKS.

situated near STOKES-UPON-TRENT, in North Staffordshire, and in possession of, and carried on by, the Fenton Park Iron and Coal Company.

These works consist of TWO BLAST FURNACES, with HEARTH &c., and all the requisite moveable plant complete. Attached are a foundry, smiths' shops, carpenters' shops, store-rooms, and offices.

On the estate, and contiguous to the works, are several pits, and in working the "Moss," "Yard," and "Birch" seams of coal, and supplying a large annual quantity. In addition there are many seams, as yet unworked, but proved at neighbouring works, and all of first-class coal, suitable for house and manufacturing purposes. There are numerous beds of ironstone on the property, from which the iron produced in the works is made, and which is of very superior quality. Several pits have been sunk to the ironstone beds, and are capable of raising a large quantity of stone for a considerable period. The lessees also farm the whole of the estate upon which are several houses occupied by agents and workmen.

For further particulars, apply to Messrs. T. E. FORSTER and Co., engineers, Newcastle-on-Tyne.

TO COALMASTERS AND OTHER CAPITALISTS.

VALUABLE COLLIERY, EMBRACING SIX HUNDRED ACRES, IN NORTH STAFFORDSHIRE.

TO BE SOLD, OR LET ON LEASE, AN EXTENSIVE

COLLIERY, now in full operation, situate in the centre of the North Staffordshire Coal Field, and including the whole of the seams of coal and stone usually found in this pottery district.

The property consists of about 600 acres, and the colliery is in full order, and doing an extensive business. The pumping and winding engines, and other plant are of excellent construction, and in good repair—and a large amount of level driving and other dead work having been recently done, the output is greatly increased.

The situation is unusually eligible, being in close proximity to two of the pottery towns, and as a line of railway (for which an Act has been obtained) about to be constructed through the centre of the estate, the colliery will be placed in direct communication with the whole of the populous districts of North Staffordshire and other places on the North Staffordshire Railway.

For further particulars, and to treat, apply to JOHN LANCASTER, Esq., Grange, Rugby, or to KEARY and SON, solicitors, Stoke-upon-Trent.

TO BE SOLD, BY PRIVATE CONTRACT, the LEASE OF

PROPERTY IN DEVONSHIRE, containing considerable MINERAL POSITS, particularly SPATHOSE IRON ORE, which has been analysed by several competent authorities, one of whom reports as follows:—

| | |
|---|-------|
| Carbonate of iron | 75.00 |
| Ditto of manganese | 2.00 |
| Ditto of lime | 1.00 |
| Ditto of magnesia | 1.00 |
| Phosphoric acid | None. |
| Sulphur | 0.50 |
| Silica | 1.00 |
| Producing 35-45 per cent. of pure iron. | |

The roasted ore produces—

Iron (as proto-peroxide) 35.00 || Oxide of manganese | 17.0 |

BICKFORD'S PATENT SAFETY FUSE
Obtained the PRIZE MEDALS at the ROYAL EXHIBITION of 1851; at the INTERNATIONAL EXHIBITION of 1855; at the IMPERIAL EXHIBITION of 1861; at the INTERNATIONAL EXHIBITION of 1867; and at the INTERNATIONAL EXHIBITION of 1873, in London, and at the INTERNATIONAL EXHIBITION of 1876, in Dublin, 1876.

BICKFORD, SMITH, AND CO.
Of TUCKERMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL OF FUSE MANUFACTURED BY THEM CARRIES PASSING THROUGH THE COLUMN OF GUNPOWDER, AND BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS AS THEIR TRADE MARK.

PRENTICE'S GUN COTTON
COMPRESSED CHARGES
FOR MINING AND QUARRYING.

The principle thus introduced insures the most perfect attainment of the points essential for the safety and stability of the material, at the same time securing the highest effective power. A charge of any given size exerts six times the explosive force of gunpowder.
The enormous power confined in a short length at the bottom of the hole allows of a much greater amount of work being placed before each blast, saving considerably in the labour of drilling.
Charges are made of every diameter required, the length varying with the diameter. Any number may be placed in a hole. Each charge is fully equal to one-fifth of a pound of powder.
PRICES.
Per case, containing 500 charges of any diameter 25s.
Per half case, containing 250 charges of any diameter 12s.
Per quarter case, containing 125 charges of any diameter 6s.
Terms.—cash.
MANUFACTURED BY
THOMAS PRENTICE AND CO., 82, GRACECHURCH STREET, LONDON.
WORKS, STOWMARKET.
LONDON AGENT,—MR. THORNE.

JOHN AND EDWIN WRIGHT,
PATENTERS.
(ESTABLISHED 1770.)
MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED
PATENT FLAT AND ROUND WIRE ROPES.
From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES.
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPULING, OIL SHEETS, BRATTICE CLOTHS, &c.
UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
No. 2, OSWALD STREET, GLASGOW.
CITY OFFICE No. 5, LEADENHALL STREET, LONDON, E.C.

THOMAS TURTON AND SONS,
MANUFACTURERS OF
CAST STEEL FOR PUNCHES, TAPS, AND DIES,
TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT AND CRANK AXLES, SHAFTS AND FORGINGS OF EVERY DESCRIPTION.
DOUBLE SHEAR STEEL, FILES MARKED
BLISTER STEEL, T. TURTON.
SPRING STEEL, EDGE TOOLS MARKED
GERMAN STEEL, WM. GREAVES & SON.
Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.
SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.
Where the largest stock of steel, files, tools, &c., may be selected from.

DERING'S PATENT ENGINE FOR TUNNELLING
MINING, QUARRYING, AND BLASTING IN OPEN CUTTING.
A SAVING OF THIRTY TO SIXTY PER CENT. in labour effected where the cost of adit exceeds £6 per fathom.
TIME FOR DRIVING ADIT REDUCED FIFTY TO SEVENTY-FIVE PER CENT.
These drilling engines are in daily use at the zinc mines of the Vieille Montagne, &c.—Times, Dec. 24, 1866.
"One of these machines was shown to work in an exceedingly satisfactory manner upon hard granite."—Engineering, Dec. 21, 1866.
Particulars may be obtained of Mr. DERING, or Mr. GROVER, 30, Duple Street Westminster.

ANALYSES OF COAL, CANNEL, MINERAL OILS, and all OIL PRODUCING MINERALS ARE UNDERTAKEN BY
A. NORMAN TATE, F.A.S.C., &c.
ANALYTICAL AND CONSULTING CHEMIST, AND CHEMICAL ENGINEER
(Author of "Petroleum and its Products," &c.),
MOLD, NORTH WALES.
Plans and estimates for oil and chemical works prepared, and their erection superintended.
Assays of metals and their ores carefully conducted.

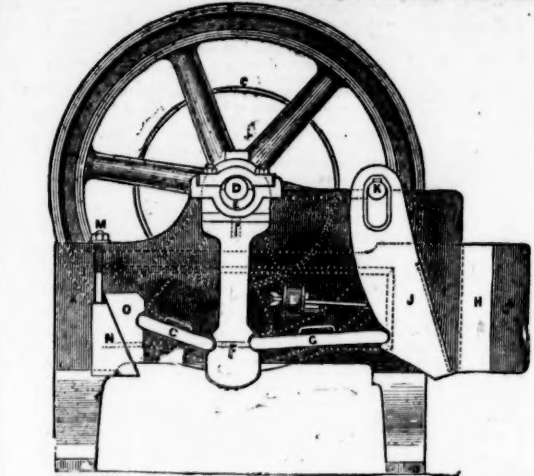
UTILISATION OF COAL DUST.
BARKER'S PATENTS.

THE LONDON PATENT COAL COMPANY (LIMITED)
having arranged with the patentee for the exclusive right to these patents within the United Kingdom, desire to call the attention of coal owners, ironmasters, and others, to the value of the invention by which the waste and small coal can, by a simple and inexpensive process, be rendered available for all the ordinary uses of the coal from which it is derived.
A series of careful experiments have been made on the Monmouthshire Railway with fuel manufactured from the Risca Black Vein Coal (small) in locomotive working heavy mineral trains over severe gradients, by which it has been ascertained that increased duty was obtained from the fuel over the same coal. The results of these experiments are so satisfactory that Mr. Alex. Basset, C.E., of Cardiff, has consented to act as the company's representative for granting licenses in South Wales, and will be happy to reply to all enquiries and give full explanation respecting the trials that have been made under his superintendence. Mr. Thomas D. Clare, of Birmingham, has also undertaken to represent the company in the Midland Counties, and large works are in course of erection in the Forest of Dean by the company's licensees there.
The company are prepared to grant licenses for the use of their patents, and from the success which has attended the manufacture at their own works, and the extraordinary popularity of the fuel for retail purposes amongst the lower classes, they believe that in every populous town a large and highly profitable trade may be carried on.
The cost of the ingredients used in the manufacture does not exceed 1s. per ton; they contain no pitch, tar, or other noxious substance, and the manufacture is not more expensive than ordinary brick-making.
The blocks are available for every purpose of ordinary coal, and stow in one-fourth less space (1 ton of fuel occupying 33 cubic feet only, as against 42 Admiralty measurement for coal).
The cost of the machinery, &c., necessary for the production of 100 tons daily will not exceed £700.
Experiments have for some time past been in progress at Woolwich with the view to render petroleum and other analogous oils available for use under steam-boilers. The patentee's attention being directed to this fact, he found that the company's fuel, being porous, would rapidly absorb these oils, 1 ton of fuel taking up 50 gallons. This absorption does not in any way affect the solidity of the blocks, and it is believed they are the best medium for the purpose yet discovered, and that the fuel oil bricks will be an immense advantage to ocean steamers and vessels of war, on account of the vast saving in stowage and their steam-producing powers. The Admiralty have just granted permission for an official trial of the company's fuel to be made at Woolwich.
The value of the company's patents to all coalowners must be at once apparent. It is also of especial value to ironmasters; and, where the slack is used for cooking purposes, the process may be adopted to advantage in roughly amalgamating the coal into blocks before placing it in the ovens. These blocks require no previous drying, and produce more coke and of better quality.
The company will be happy to receive specimens of coal dust at their North Fleet Works, which will be manufactured and reported upon free of charge, and they will send a competent person to manufacture a small quantity of fuel at any colliery where the experiments may be desired.
For further particulars respecting license, terms, &c., apply to the company's representatives in their respective districts, or to the Managing Director, 26, Martin's-lane, Cannon-street, E.C., London.
By order,
EDWIN W. GLOVER, Secretary.

FRANCE AND BELGIUM.
BARKER'S FUEL PATENTS.
For all information apply by letter to HAMMOND and SON, No. 26, Cornhill London.

CRANE'S NEW AND IMPROVED PATENT BORING MACHINE.—In consequence of the various and IMPORTANT IMPROVEMENTS that an experience of several years has enabled the inventor to command them for their increased DURABILITY, SIMPLICITY, ECONOMY, and AFFIDED to be attained in DRIVING LEVELS or DRIFTS.
The inventor has made arrangements to supply them in any quantity, with warranty. Orders executed according to their date of priority.
Address, EDWARD S. CRANE, Tavistock, Devon.

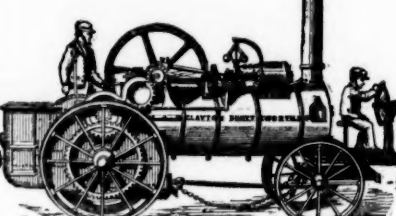
IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, MCADAM ROAD MAKERS, &c., &c.
BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.
It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



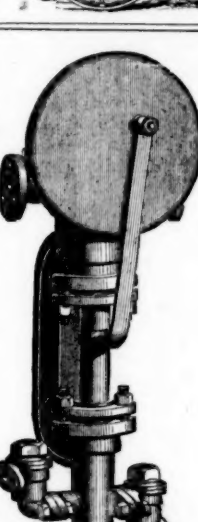
The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Moreton reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.
H. R. Marsden, Esq.
Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw a about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
H. R. Marsden, Esq. THOS. GOLDSWORTHY & SONS.
Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.
Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.
Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.
Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCASTER.
Oreos, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.
General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—
H. R. MARSDEN, SOHO FOUNDRY,
MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.

CLAYTON, SHUTTLEWORTH, AND CO.,
LINCOLN,
And 78, LOMBARD STREET, LONDON.



Illustrated Catalogues containing the latest revised Price Lists and particulars of
PORTABLE AND STATIONARY STEAM ENGINES
(from 4 to 40-horse power), Thrashing, Grinding, Pumping, Sawing Machinery, &c., will be forwarded free on application as above.
TRACTION ENGINES for COMMON ROADS, and for STEAM CULTIVATION.
NOTE.—Nearly 8000 Engines and 6000 Thrashing Machines have been made by this firm within the last few years.



THE NEW PATENT INJECTOR,
FOR FEEDING BOILERS AND RAISING WATER FOR OTHER PURPOSES.
BY ROYAL LETTERS PATENT, No. 1539, DATED 2d JUNE, 1866.

PRICES, DELIVERED IN LONDON:—

| Size. | Ram. | Stroke. | Approx. horse-power | Approximate gallons thrown per hour. | | | Price. |
|-------|------|---------|---------------------|--------------------------------------|----------|------------------|--------|
| No. | in. | in. | boiler supplied. | At 100 rev. | 150 rev. | 200 rev. p. min. | |
| 4 | 1½ | 3 | 15 | 115 | 172 | 230 | £10 10 |
| 5 | 1¾ | 3 | 22 | 180 | 270 | 360 | 12 12 |
| 6 | 1⅞ | 4 | 30 | 240 | 360 | 480 | 14 14 |
| 7 | 2 | 4 | 40 | 345 | 517 | 690 | 17 0 |
| 8 | 2¼ | 5½ | 55 | 475 | 712 | 950 | 19 10 |
| 9 | 2½ | 5½ | 75 | 585 | 877 | 1170 | 22 10 |
| 10 | 2¾ | 6½ | 90 | 720 | 1080 | 1440 | 25 10 |
| 11 | 3 | 6½ | 110 | 870 | 1305 | 1740 | 28 10 |
| 12 | 3¼ | 8 | 120 | 1030 | 1545 | 2060 | 31 10 |
| 14 | 3½ | 8 | 230 | 2450 | 3675 | — | 40 0 |
| 16 | 3¾ | 8 | 460 | 4900 | 7350 | — | 55 0 |

* The two last are double-acting.

Steam Regulator Valves, and also Check Valves, specially made to suit these Engines, can be supplied.
Terms: Nett Cash on Delivery.
Each Injector is guaranteed to work efficiently, and any one failing to give satisfaction may be returned.
A CIRCULAR, WITH FULL EXPLANATION AND COMPARISONS, WILL BE SENT ON APPLICATION.

BROWN, WILSON, AND CO.,
No. 80, CANNON STREET, E.C.; AND VAUXHALL IRONWORKS, S., LONDON.

PARIS EXHIBITION, CLASS 52.
MEDAILLE D'HONNEUR.

APPLEBY BROTHERS,
EMERSON STREET, SOUTHWARK,
LONDON, S.E.,
Engineers and Patentees of STEAM CRANES, DONKEY PUMPS, &c.

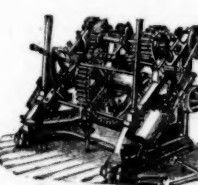
LONDON, S.E.,

Engineers and Patentees of **STEAM CRANES, DONKEY PUMPS, &c.,**

PATENT DONKEY PUMPS.

| | | | | | | | | |
|------------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| Ram..... | 1½ in..... | 2 in..... | 2½ in..... | 3 in..... | 3½ in..... | 3 in..... | 3½ in..... | 4 in..... |
| *Gall. per hour. | 230 | 400 | 650 | 850 | 1200 | 1500 | 2100 | 2500 |
| Approx. H.P..... | 15 | 25 | 40 | 50 | 80 | 95 | 130 | 150 |
| Price..... | £10 5 | £12 10. | £15 | £18 | £21 | £24 | £28 | £30 |
| | | | | | | | | £35 |

* Calculated at 200 strokes per minute.



STEAM DECK WINCH.

COAL CUTTING MACHINERY.—
The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY TO MAKE CONTRACTS FOR THE CONSTRUCTION AND USE OF their MACHINES.
The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN THE COST AND IMPROVE THE AVERAGE SIZE OF THE COAL, TO LIGHTEN THE LABOUR, and also to MODIFY THE SANITARY CONDITION OF the MINE.
All communications to be made to Messrs. FIRTH, DONNISTHORPE, and BOWEN, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, OR USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

NITRO-GLYCERINE, OR NOBEL'S PATENT BLASTING OIL.—The EXPLOSIVE FORCE of this BLASTING OIL is TEN TIMES that of GUNPOWDER, and the ECONOMY AND SAVING IN TIME, LABOUR, and COST in removing granite and hard rock, in sinking shafts, driving tunnels, and opening forward in close ends is immense.
It will not explode from a spark or fire, but from concussion alone, and is consequently much less dangerous than gunpowder or gun-cotton.
Being heavier than water it sinks to the bottom of a wet hole, no other tampering than water being required.
One charge of this blasting oil, which is now being used with wonderful effect in all the largest slate quarries in North Wales, will displace as much slate rock as four or five charges of gunpowder; and its great force, acting on a large quantity of good slate rock, shakes and displaces it at the natural joints, or cracks, without damaging the slabs nearly so much as the more numerous blasts from any other blasting material would do.
This invaluable quarrying agent may now be obtained from Messrs. WEBB and CO., Carnarvon, sole consignees from the patentee.

THE CORNWALL BLASTING POWDER COMPANY,
ST. ALLEN GUNPOWDER MILLS, TRURO.

MANUFACTURERS OF PATENT BLASTING POWDER,
ORDINARY GUNPOWDER, AND WATERPROOF SAFETY BLASTING CARTRIDGES.
THE CORNWALL BLASTING POWDER COMPANY SOLICIT PARTICULAR ATTENTION to their PATENT BLASTING POWDER, which has now been fully tested by time, and the growing estimation in which it is held by working men proves its great superiority over ordinary gunpowder.
It possesses the following advantages:—
Its WEIGHT being about TWENTY-FIVE PER CENT. LESS than ORDINARY GUNPOWDER, and EQUAL IN STRENGTH, bulk for bulk, an IMPORTANT SAVING IS EFFECTED on the score of CONSUMPTION.
It creates, on explosion, only about ONE-HALF as much SMOKE as ORDINARY GUNPOWDER, and this smoke being of a lighter nature soon passes away, and an IMPORTANT SAVING IS thus EFFECTED on the score of TIME.
IT IS ADAPTED TO ANY CLIMATE, DOES NOT BECOME WASTEFUL BY EXPOSURE TO THE ATMOSPHERE, IS NOT MORE DANGEROUS IN USE than ORDINARY GUNPOWDER.
Testimonials forwarded on application.

BASTIER'S CHAIN PUMP.—
This patent pump is the MOST EFFICIENT in existence for LIFTING ANY QUANTITY of WATER from ANY DEPTH. One lifting from a depth of 170 ft. may be seen at work daily, on application to the
SOLE LICENSEES,
Messrs. J. JACKSON AND CO., ENGINEERS, 17, GRACECHURCH STREET, LONDON, E.C.
Who SUPPLY PUMPS and LICENCES.
Communications to Mr. Bastier, the patentee, to be sent to the same address.
AGENT FOR THE COUNTIES OF NORTHUMBERLAND AND DURHAM, YORKSHIRE, DERBYSHIRE, AND NORTH STAFFORDSHIRE,
MR. THOMAS GREENER, MINING OFFICE, NORTHGATE, DARLINGTON.
AGENTS FOR SCOTLAND,
Messrs. P. and W. MACLELLAN, 127 and 129, TRONGATE, GLASGOW.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per share. | Last paid. |
|---------|----------------------------------|----------|----------|-----------|-------------|------------|------------|
| 1500 | Alderley Edge, c, Cheshire | 10 0 0 | .. | .. | 8 12 8 | 0 5 0 | Jan. 1867 |
| 200 | Botalack, t, c, St. Just | 91 5 0 | 180 | .. | 488 15 0 | 5 0 0 | May 1866 |
| 4000 | Brookwood, t | 1 11 0 | .. | .. | 0 5 0 | 0 2 6 | Sept. 1866 |
| 2000 | Bronford, t, Cardigan | 12 0 0 | .. | .. | 8 7 0 | 0 6 0 | Aug. 1867 |
| 4000 | Cashwell, t, Cumberland | 2 10 0 | .. | .. | 0 1 6 | 0 1 0 | Feb. 1868 |
| 916 | Cargill, s, t, Newlyn | 15 5 7 | .. | 12 14 | 13 15 0 | 1 6 0 | Aug. 1866 |
| 1867 | Cwm Erfin, t, Cardiganshire | 7 10 0 | .. | .. | 23 18 0 | 1 0 0 | June 1867 |
| 128 | Cwmystwith, t, Cardiganshire | 60 0 0 | .. | .. | 379 10 0 | 3 0 0 | April 1867 |
| 200 | Dervent Mines, s, t, Durham | 300 0 0 | .. | .. | 174 10 0 | 5 0 0 | June 1867 |
| 1024 | Devon Gt. Consols, c, Tavistock | 1 0 0 | .. | 410 420 | 1067 0 0 | 7 0 0 | July 1867 |
| 358 | Dolcoath, c, t, Camborne | 128 17 6 | .. | .. | 828 10 0 | 3 0 0 | June 1867 |
| 6144 | East Caradon, c, St. Cleer | 2 14 6 | 4 1/2 | 4 1/2 | 14 11 6 | 0 2 0 | July 1867 |
| 400 | East Darren, t, Cardiganshire | 32 0 0 | .. | .. | 146 10 0 | 2 0 0 | July 1867 |
| 128 | East Pool, t, c, Pool, Illogan | 24 5 0 | .. | .. | 407 10 0 | 5 0 0 | July 1867 |
| 4000 | East Rosewarne, c, t, Gwinear | 2 15 0 | .. | .. | 0 10 6 | 0 1 6 | Jan. 1868 |
| 1906 | East Wheel Lovell, t, Wendron | 3 9 0 | 6 1/2 | 6 1/2 | 2 15 0 | 0 7 6 | April 1867 |
| 2800 | Foxdale, t, Isle of Man | 25 0 0 | .. | .. | 70 10 0 | 0 10 0 | June 1867 |
| 5000 | Frank Mills, t, Christow | 3 18 6 | .. | .. | 3 5 6 | 0 5 0 | Feb. 1868 |
| 5000 | Groat Lacey, t, Isle of Man | 4 0 0 | 16 1/2 | 16 1/2 | 6 15 0 | 0 10 0 | June 1867 |
| 5938 | Great Wheel Vor, t, c, Helston | 40 0 0 | 17 | 16 1/2 | 11 13 0 | 0 7 6 | June 1867 |
| 1024 | Horodfoot, t, near Liskeard | 8 10 0 | 34 | 32 1/2 | 42 0 0 | 1 10 0 | June 1867 |
| 6000 | Hingston Down, c, t | 5 10 6 | .. | .. | 0 10 0 | 0 2 0 | May 1867 |
| 400 | Lisburne, t, Cardiganshire | 18 15 0 | .. | .. | 492 10 0 | 3 0 0 | May 1867 |
| 9000 | Marke Valley, c, Caradon | 4 10 6 | 4 1/2 | 4 1/2 | 3 0 0 | 0 3 0 | July 1867 |
| 3000 | Minera Boundary, t, Wrexham | 1 0 0 | .. | .. | 0 13 0 | 0 3 0 | Mar. 1868 |
| 1800 | Minera Mining Co. t, Wrexham | 25 0 0 | 180 | 160 180 | 212 13 0 | 4 0 0 | May 1867 |
| 20000 | Mineral Co. of Ireland, c, t | 7 0 0 | .. | .. | 0 6 6 | 0 2 6 | Mar. 1868 |
| 40000 | Mynyddir Iron Ore | 3 5 0 | .. | .. | 157 10 0 | 3 0 0 | Jan. 1868 |
| 200 | Parys Mines, c, Anglesey | 50 0 0 | .. | .. | 0 5 0 | 0 5 0 | Jan. 1868 |
| 6000 | Prosper United, t, c, St. Hilary | 8 14 0 | .. | .. | 89 17 6 | 0 10 0 | May 1867 |
| 1120 | Providence, t, Uney Lelant | 10 6 7 | 29 | 26 28 | 562 10 0 | 6 0 0 | July 1867 |
| 512 | South Caradon, c, St. Cleer | 1 5 0 | 35 | 345 355 | 0 7 1 | 0 1 6 | July 1867 |
| 6000 | South Darren, t | 3 6 6 | .. | .. | 0 10 0 | 0 5 0 | Jan. 1867 |
| 508 | Summer Hill, t, Helston | 3 13 6 | .. | .. | 18 11 0 | 0 5 0 | Jan. 1867 |
| 6000 | Truro, t, c, Pool, Illogan | 9 0 0 | 12 1/2 | 12 1/2 | 11 10 0 | 0 5 0 | June 1867 |
| 2000 | Trumpet Cons., t, Helston | 11 10 0 | .. | .. | 19 7 6 | 2 0 0 | May 1867 |
| 3000 | W. Chiverton, t, Perranzabuloe | 10 0 0 | 65 | 63 65 | 473 0 0 | 3 0 0 | June 1867 |
| 400 | West Wheal Seton, c, Camborne | 47 10 0 | .. | .. | 628 0 0 | 2 0 0 | Aug. 1867 |
| 512 | Wheal Bassett, c, Illogan | 5 2 6 | 75 | 67 1/2 | 300 10 0 | 0 10 0 | Nov. 1867 |
| 1024 | Wheal Friendship, c, Tavistock | 20 0 0 | .. | .. | 3 1 0 | 0 2 0 | Feb. 1868 |
| 4295 | Wheal Killy, t, St. Agnes | 6 4 6 | .. | .. | 61 15 0 | 0 15 0 | June 1867 |
| 1024 | Wheal Mary Ann, t, Menheniot | 8 0 0 | 15 | 14 1/2 | 1 0 0 | 0 10 0 | Feb. 1868 |
| 2000 | Wheal Rose, c, Scorrier | .. | .. | .. | 244 5 0 | 2 10 0 | June 1867 |
| 396 | Wheal Seton, c, t, Camborne | 58 10 0 | 115 | 105 110 | 54 14 6 | 0 4 0 | June 1867 |
| 1040 | Wheal Trelawny, s, t, Liskeard | 5 17 0 | 9 | 8 9 | 0 10 0 | 0 10 0 | July 1867 |
| 2000 | Whitwell Lead, Clitheroe | 0 5 0 | .. | .. | 46 15 0 | 1 0 0 | April 1867 |
| 17000 | Wicklow, c, t, Wicklow | 2 10 0 | .. | .. | .. | .. | .. |

FOREIGN DIVIDEND MINES.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per share. | Last paid. |
|---------|---|--------|----------|-----------|-------------|------------|------------|
| 20000 | Anstralian, c, South Australia | 7 7 6 | .. | .. | 0 1 0 | .. | Aug. 1867 |
| 16000 | Cape Copper Mining | 7 0 0 | .. | .. | 2 12 6 | 0 10 0 | April 1866 |
| 1000000 | Don Pedro No. 1, Rey, Brazil | 0 14 0 | 2 1/2 | 1 1/2 | 0 4 3 | 0 1 6 | June 1866 |
| 20000 | Fortuna, t, Spain | 2 0 0 | 2 1/2 | 2 1/2 | 1 5 4 | 0 2 0 | Oct. 1867 |
| 20000 | Gen. Mining Co., Nova Scotia | 20 0 0 | 18 | 16 18 | 23 19 0 | 0 15 0 | June 1867 |
| 10000 | Gonessa, t, [5000 £5 pd., 5000 £4 pd.] | .. | .. | .. | 10 percent. | .. | July 1867 |
| 15000 | Linares, t, Spain | 3 0 0 | .. | .. | 11 6 4 | 0 5 0 | Jan. 1866 |
| 50000 | Panulillo, c, t | 3 0 0 | 2 1/2 | .. | 10 percent. | .. | Yearly. |
| 4000 | Peel River Land and Mineral | .. | .. | .. | 0 2 6 | 0 2 6 | Mar. 1867 |
| 50000 | Pestana, g, t | 2 10 0 | 3 1/2 | 2 1/2 | 4 14 3 | 0 11 0 | June 1867 |
| 10000 | Pontigbaud, s, t, France | 20 0 0 | .. | .. | 0 16 6 | 0 1 0 | Jan. 1867 |
| 100000 | Port Phillip, g, t, Clunes | 1 0 0 | 1 1/2 | 1 1/2 | 7 5 0 | 0 4 0 | June 1867 |
| 1200000 | Scottish Australian Mining Co. | 1 0 0 | 1 | 1 | 0 9 0 | 0 1 0 | Jan. 1866 |
| 11000 | St. John del Rey, Brazil | 15 0 0 | 55 | 56 58 | 0 19 6 | 0 2 6 | May 1866 |
| 20000 | Victoria (London) [5000 £1 pd., 25000 £5 pd.] | 1 0 0 | .. | .. | .. | .. | .. |
| 40000 | West Canada Mining Company | 1 0 0 | .. | .. | .. | .. | .. |

NON-DIVIDEND FOREIGN MINES.

| Shares. | Mines. | Paid. | Last Pr. | Business. | Total divs. | Per share. | Last paid. |
|---------|---|--------------|----------|-----------|-------------|------------|------------|
| 25000 | Alamillos, t, Spain | 2 0 0 | .. | .. | 1 1/2 | 1 1/2 | .. |
| 100000 | Anglo-Brazilian, g, t | 0 10 0 | .. | .. | 0 5 0 | .. | .. |
| 12500 | Anglo-Italian, g, t | 0 5 0 | .. | .. | .. | .. | .. |
| 40000 | Britannia Silver-Lead Mines, France [15750 £8 pd.] | .. | .. | .. | .. | .. | .. |
| 2464 | Burra Burra, c, South Australia | 5 0 0 | .. | .. | .. | .. | .. |
| 25000 | Capula, s, Mexico | 1 19 0 | .. | .. | .. | .. | .. |
| 30000 | Chontales, g, s, Nicaragua | 4 0 0 | 4 1/2 | 4 1/2 | .. | .. | .. |
| 12000 | Cobre Copper Company, c, Cuba | 43 10 0 | .. | .. | .. | .. | .. |
| 10000 | Copio Mining Company, Chile | 16 10 0 | .. | .. | .. | .. | .. |
| 10000 | Copio Mining Company, Chile | 10 0 0 | .. | .. | .. | .. | .. |
| 300 | Copper Mines Co. of South Australia [150 £100 pd.] | 150 £70 pd.] | .. | .. | .. | .. | .. |
| 15000 | El Chilio Silver Mining and Reduction Company | 5 0 0 | .. | .. | .. | .. | .. |
| 8000 | English and Canadian Mining Company | 5 0 0 | .. | .. | .. | .. | .. |
| 40000 | Fortune Copper Mining Co. of Western Australia | 2 0 0 | .. | .. | .. | .. | .. |
| 50000 | Frontino and Bolivia, g, New Granada | 1 15 0 | 1 1/2 | 88. 98. | .. | .. | .. |
| 10000 | Great Barrier Land, Mining, &c., New Zealand | 5 0 0 | .. | .. | .. | .. | .. |
| 80000 | Great Northern, c, South Australia | 1 11 0 | .. | .. | .. | .. | .. |
| 60000 | Kapunda Mining Co., Australia | 1 0 0 | .. | .. | .. | .. | .. |
| 7927 | Lustanlan (Portugal) | 3 0 0 | .. | .. | .. | .. | .. |
| 80000 | Mariposa | 0 12 6 | .. | .. | .. | .. | .. |
| 12500 | Nerubida Coal and Iron [5000 £5 pd., 5000 £4 pd.] | .. | .. | .. | .. | .. | .. |
| 51000 | New Quebrada, c, Venezuela | 3 10 0 | .. | .. | .. | .. | .. |
| 50000 | Nova Scotia Land and Gold | 1 15 0 | .. | .. | .. | .. | .. |
| 10000 | Otea, c, New Zealand | 2 0 0 | .. | .. | .. | .. | .. |
| 10178 | Rhenish Consolidated, t, [5000 £5 pd., 4178 £2 10s pd.] | .. | .. | .. | .. | .. | .. |
| 100000 | San Pedro del Monte, s, Mexico | 4 0 0 | .. | .. | .. | .. | .. |
| 15000 | San Pedro del Monte, s, Mexico | 4 0 0 | .. | .. | .. | .. | .. |
| 10000 | San Roque, t, Spain | 5 0 0 | .. | .. | .. | .. | .. |
| 4174 | Union Mexican, s, Mexico | 28 5 0 | 2 | 1 1/2 | .. | .. | .. |
| 10000 | Vancouver, c, t | 6 0 0 | .. | .. | .. | .. | .. |
| 4000 | Val Sassam, s, c, t | 7 0 0 | .. | .. | .. | .. | .. |
| 45000 | Victor Emanuel, c, Italy | 1 0 0 | .. | .. | .. | .. | .. |
| 20000 | Washoe, g, t | 5 0 0 | .. | .. | .. | .. | .. |
| 50000 | Worthing, c, South Australia | 1 0 0 | .. | .. | .. | .. | .. |
| 75000 | Yorke Peninsula, South Australia | 1 0 0 | .. | .. | .. | .. | .. |
| 45000 | Yudanamutana, c, S. A. | 3 0 0 | 1 | 3 1 | .. | .. | .. |

BANKS AND FINANCIAL COMPANIES.

| Shares. | Banks. | Paid. | Last Pr. | Business. | Total divs. | Per share. | Last paid. |
|---------|--|---------|----------|-----------|-------------|------------|------------|
| 40000 | Alliance | 25 0 0 | 13 1/2 | .. | .. | .. | .. |
| 40000 | Australian Mort. Land and Finance | 5 0 0 | .. | .. | .. | .. | .. |
| 30000 | Australasian | 40 0 0 | .. | .. | .. | .. | .. |
| 10000 | Bank of Egypt | 25 0 0 | .. | .. | .. | .. | .. |
| 50000 | Bank of New Zealand | 10 0 0 | 19 | 17 19 | .. | .. | .. |
| 25000 | Bank of Otago | 10 0 0 | .. | .. | .. | .. | .. |
| 20000 | Bank of Victoria, Australia | 25 0 0 | .. | .. | .. | .. | .. |
| 20000 | British North American | 50 0 0 | .. | .. | .. | .. | .. |
| 2915 | Canada Company | 32 10 0 | 70 | 65 70 | .. | .. | .. |
| 50300 | Canadian Loan and Investment | 2 10 0 | .. | .. | .. | .. | .. |
| 4000 | Chartered Bank India, Australia, and China | 20 0 0 | .. | .. | .. | .. | .. |
| 30000 | Chartered Merc. of India, London and China | 20 0 0 | 27 | 26 28 | .. | .. | .. |
| 50000 | City | 10 0 0 | 14 | 12 14 | .. | .. | .. |
| 50000 | Colonial | 25 0 0 | .. | .. | .. | .. | .. |
| 40000 | Company of African Merchants | 3 0 0 | 3 1/2 | .. | .. | .. | .. |
| 20000 | Consolidated Bank | 10 0 0 | 4 | 4 1/2 | .. | .. | .. |
| 20000 | Credit Foncier and Mobilier of England | 9 0 0 | 3 1/2 | 3 3 1/2 | .. | .. | .. |
| 20000 | East London | 5 0 0 | .. | .. | .. | .. | .. |
| 20000 | English, Scottish, & Aust., Chart. | 20 0 0 | .. | .. | .. | .. | .. |
| 20000 | English and Swedish | 25 0 0 | .. | .. | .. | .. | .. |
| 20000 | Imperial Bank | 20 0 0 | 19 | 18 19 | .. | .. | .. |
| 2 2500 | Imperial Bank | 10 0 0 | 8 | 8 8 1/2 | .. | .. | .. |
| 20000 | International Land Credit | 6 0 0 | 2 1/2 | 1 1/2 | .. | .. | .. |
| 50000 | London Chartered Bank of Australia | 20 0 0 | .. | .. | .. | .. | .. |
| 37500 | London and County | 20 0 0 | 56 | 54 56 | .. | .. | .. |
| 40000 | London Financial Association | 30 0 0 | .. | .. | .. | .. | .. |
| 72000 | London Joint-Stock | 15 0 0 | 40 | 37 29 | .. | .. | .. |
| 5000 | London and River Plate | 40 0 0 | .. | .. | .. | .. | .. |
| 20000 | ditto ditto | 10 0 0 | 11 1/2 | .. | .. | .. | .. |
| 20000 | ditto ditto | 10 0 0 | .. | .. | .. | .. | .. |
| 10000 | London and South-Western | 10 0 0 | .. | .. | .. | .. | .. |
| 5000 | London and Venezuela | 12 10 0 | .. | .. | .. | .. | .. |
| 50000 | London and Westminster | 20 0 0 | 100 | 87 90 | .. | .. | .. |
| 50000 | Mercantile and Exchange | 12 10 0 | .. | .. | .. | .. | .. |
| 10000 | Merchant | 25 0 0 | .. | .. | .. | .. | .. |
| 5000 | ditto | 20 0 0 | .. | .. | .. | .. | .. |
| 17156 | Metropolitan and Provincial | 20 0 0 | .. | .. | .. | .. | .. |
| 2000 | Midland | 20 0 0 | .. | .. | .. | .. | .. |
| 20000 | National of Australia | 4 0 0 | .. | .. | .. | .. | .. |
| 20000 | National of Liverpool | 10 0 0 | .. | .. | .. | .. | .. |
| 10000 | National Provincial of England | 12 0 0 | .. | .. | .. | .. | .. |
| 5000 | ditto | 12 0 0 | .. | .. | .. | .. | .. |
| 40000 | National | 30 0 0 | .. | .. | .. | .. | .. |
| 50000 | New South Wales | 20 0 0 | 44 | .. | .. | .. | .. |
| 60000 | Oriental Bank Corporation | 25 0 0 | 43 | 42 44 | .. | .. | .. |
| 27210 | Provincial Banking Corporation | 10 0 0 | 4 | .. | .. | .. | .. |
| 25000 | Provincial of Ireland | 25 0 0 | 87 | 85 87 | .. | .. | .. |
| 10000 | ditto | 10 0 0 | .. | .. | .. | .. | .. |
| 20000 | Union of Australia | 25 0 0 | 45 | 46 48 | .. | .. | .. |
| 10000 | Union of Ireland | 22 0 0 | .. | .. | .. | .. | .. |
| 50000 | Union of London | 15 0 0 | 40 | 39 40 | .. | .. | .. |

PROGRESSIVE MINES.

| Shares. | Mines. | Paid. | Last Pr. | Bus. done. | Last call |
|---------|--|------------------------------------|----------|------------|------------|
| 4000 | Ballaclough, t, of Man, t, c | 2 10 0 | .. | .. | May 186 |
| 2000 | Bedford Unit, c, Tavistock | 2 10 0 | .. | .. | .. |
| 1031 | Bedol Aur, t, Holywell | 1 12 0 | .. | .. | May 186 |
| 500 | Billins, t, Flint | 30 0 0 | .. | .. | .. |
| 1248 | Boscawell, t, c, St. Just | 7 6 0 | .. | .. | Dec. 186 |
| 2500 | Bosworth and Penzance | 4 10 0 | .. | .. | July 186 |
| 2000 | Bottle Hill, t, Plympton | 5 6 0 | .. | .. | July 186 |
| 1000 | Bladenyffryn, t, c | 5 0 0 | .. | .. | .. |
| 200 | Brynford Hall, t, Flint | 23 0 0 | .. | .. | Jan. 186 |
| 5000 | Bryn Gwilog, t, Flint | 18 0 0 | .. | .. | June, 186 |
| 1200 | Bryn Gwilog, t, Mold* | 9 0 0 | .. | .. | .. |
| 1000 | Budnick Consols, c, t | .. | .. | .. | .. |
| 5094 | Bwlch Consols, s-t | 4 0 0 | .. | .. | .. |
| 6000 | Bwadrin Consols, s-t | 3 0 0 | .. | .. | .. |
| 80000 | Caldbeck Fells, t, Cumber* | 1 10 0 | .. | .. | Dec. 186 |
| 1000 | Cambridge Vn, t, W. Frn | 11 14 7 | 1 | .. | July 186 |
| 4600 | Camborne Pn, s, Camba | 2 2 0 | 1 | .. | July 186 |
| 1100 | Cape Cornwall, t, c | [3000 £210 pd., 3000 10s. pd.] | .. | .. | Oct. 186 |
| 9104 | Caradon Cons, c, St. Cleer | 32 3 6 | .. | .. | July 186 |
| 1000 | Carn Brea, c, t, Illogan* | 38 0 0 | 13 | 12 14 | July 186 |
| 6000 | Carn Camborne, c, Camba | 2 2 0 | 1 | .. | July 186 |
| 5000 | Carnarvonshire, t* | 4 0 0 | .. | .. | .. |
| 4005 | Cardigan Cons. | 5 0 0 | .. | .. | .. |
| 600 | Cardigan Cons. | 17 10 0 | .. | .. | .. |
| 20000 | Caryfort [3200 £210 pd., 16800 21s. pd.] | .. | .. | .. | .. |
| 2500 | Cefn Cilcen, t, Flint* | 2 18 0 | .. | .. | Aug. 186 |
| 2500 | Central Miners, t | 3 17 6 | .. | .. | June 186 |
| 16000 | Central Snailbeach t* | 1 0 0 | .. | .. | .. |
| 3000 | Chiverton, t, Perranzabun | 9 6 6 | 7% | 6% | May 186 |
| 3000 | Chiverton Moor, t, Perranz | 6 7 0 | 5% | 4% | May 186 |
| 2883 | Clara, Llywernog | 2 16 6 | .. | .. | .. |
| 2500 | Clifford Amalg, c, Gwen* | 33 17 6 | 7 | 6% | May 186 |
| 50000 | Connaught c, t, Wicklow | 2 76 0 | .. | .. | .. |
| 2450 | Cook's Kitchen, c, Illogan | 19 14 0 | 10 | 9 10 | .. |
| 1204 | Copper Hill, c, Redruth* | 12 10 0 | .. | .. | June, 186 |
| 6885 | Cornish Clay and Tin | 1 0 0 | .. | .. | .. |
| 5055 | Cradock Moor, c, St. Cleer | 12 6 0 | .. | .. | .. |
| 861 | Craze, c, Camborne | 33 9 6 | .. | .. | Dec. 186 |
| 12000 | Crelake, c, Tavistock | 3 12 0 | .. | .. | .. |
| 6000 | Cuddra, t, St. Austell | 5 0 0 | .. | .. | Oct. 186 |
| 2500 | Dale, t, North Croft | 1 0 0 | .. | .. | .. |
| 4000 | Devon Wharf Frances | 1 5 9 | .. | .. | .. |
| 1024 | Dev. Wh. Lopes, Bickleigh | 18 10 0 | .. | .. | .. |
| 12800 | Drake Walls, t, Calstock* | 2 5 0 | .. | 3% 1/2 | Dec. 186 |
| 656 | Ding Dong, t, Gulval* | 49 14 6 | .. | .. | Dec. 186 |
| 25000 | Dundalk, Ireland, t* | 0 15 0 | .. | .. | Feb. 186 |
| 3000 | Dyfnwgm, t, Wales | 13 7 0 | .. | .. | June, 186 |
| 740 | Eaglebrook, t* | 19 15 0 | .. | .. | .. |
| 500 | East Bassett, c, Redruth* | 31 10 0 | 16 | 15 17 | July 186 |
| 1030 | East Basset, c, Redruth* | 1 0 0 | .. | .. | .. |
| 600 | E. Bottle Hill, t, Plympton | 9 6 6 | .. | .. | .. |
| 4096 | East Brookwood, Holne | 2 8 8 | .. | .. | July, 186 |
| 4000 | E. Carn Brea, c, Redruth | 3 15 0 | .. | .. | .. |
| 6000 | East Chiverton, t, Perranz | 2 11 9 | .. | .. | Mar. 186 |
| 4000 | E. Grenville, c, Camborne | 3 6 6 | 1% | 1% | Feb. 186 |
| 6000 | E. Gunnislake & S. Bed. c | 10 7 0 | .. | .. | June 186 |
| 6000 | East Laxey, t, Isle of Man | 2 15 0 | .. | .. | Dec. 186 |
| 4000 | East Neptune, c, Marazion | .. | .. | .. | .. |
| 3986 | E. Providence, c, t, Penryn | 5 1 0 | .. | .. | Feb. 186 |
| 6000 | East Snaffle, t, I. of Man* | 2 0 0 | .. | .. | Dec. 186 |
| 5610 | East Seton, c, Camborne | 0 13 6 | .. | .. | May 186 |
| 2500 | E. St. Just, t* | [6000 £310s. pd., 3000 £110s. pd.] | .. | .. | Nov. 186 |
| 900 | East Tugus, c, Redruth | 96 0 0 | .. | .. | April, 186 |
| 1190 | E. Wh. Agar, c, St. Cleer | 12 17 0 | .. | .. | Jan. 186 |
| 5000 | E. Wh. Rose Con., t, Per.* | 2 0 0 | .. | .. | .. |
| 4000 | E. Wh. Russell, Tavistock* | 12 5 6 | .. | 1 1/2 | July 186 |
| 4000 | Forrester Consols, c, t | 0 12 6 | .. | .. | .. |
| 940 | Four Corners, t, Redruth | 5 6 6 | .. | .. | Feb. 186 |
| 6000 | Furze Hill Windmill, Buck | 1 15 0 | .. | .. | Mar. 186 |
| 4000 | Furdon, c, [5000 £110s.] | .. | .. | .. | Mar. 186 |
| 4096 | Garlidna Unit, t, Wendron | 5 7 7 | .. | .. | Feb. 186 |
| 6000 | Gawton, c, Tavistock | 3 10 6 | .. | .. | May 186 |
| 6000 | Gen. Min. Co. for Ireland, c | 5 10 0 | .. | .. | .. |
| 6000 | Glasgow Caradon c* [30000 £1 pd., 10000 10. pd.] | .. | .. | .. | Sept. 186 |
| 700 | Goginan, t | 12 10 0 | .. | .. | April 186 |
| 6144 | Gonamena, c, St. Cleer | 6 0 0 | .. | .. | June 186 |
| 4800 | Gothic, s-t, C. G. Agnes | 1 0 0 | 5 | .. | .. |
| 486 | Granville, c, St. Aubyn | 71 0 0 | 4% | 4 4% | Mar. 186 |
| 4000 | Great Cwmynilog, s-t* | 1 0 0 | .. | .. | May 186 |
| 4000 | Great Caradon, c, St. Ives | 3 13 0 | .. | .. | Feb. 186 |
| 6000 | Great Chiverton, s-t* | 1 0 0 | .. | .. | May 186 |
| 6000 | Gr. East Lovell, t, Helston | 2 1 0 | .. | .. | Nov. 186 |
| 6000 | Great Mona, t, Isle of Man* | 4 0 0 | .. | .. | June, 186 |
| 5000 | Great North Downs, c | 6 13 0 | 3% | 3% | Feb. 186 |
| 6000 | Gr. No. Laxey (Isle of Man)* | 0 12 6 | .. | 1 1/2 | Jan. 186 |
| 6000 | Great Retallack, s-t | 2 4 0 | 5 | 4% | .. |
| 6000 | Gr. St. Austell, t | 1 0 0 | .. | .. | May 186 |
| 6000 | Gr. So. Tolgus, c, Redruth | 1 4 0 | .. | .. | June 186 |
| 37813 | Great Wheel Badden, t | 7 17 6 | .. | .. | June, 186 |
| 1199 | Gt. Wh. Fortune, t, Breage | 29 5 6 | .. | .. | July 186 |
| 12140 | Great Work, t, Germoe | 100 0 0 | .. | .. | .. |
| 9249 | Gunnislake (Clitters) t, t | 4 19 0 | .. | .. | April 186 |
| 9068 | Gwydyr Park, t, Llanrwst | 1 13 6 | .. | .. | June 186 |
| 24000 | Hallenbeck, c, Kenwyn* | 2 17 0 | .. | .. | April 186 |
| 6000 | Harwood, t, Durham* | 0 6 0 | .. | .. | .. |
| 6000 | Havan, t, Cardigan | 1 0 0 | .. | .. | Mar. 186 |
| 6000 | Lady Bertie, c, Tavistock | 4 4 0 | .. | .. | May 186 |
| 019 | Leeds and St. Aubyn, t, c | 19 13 4 | .. | .. | Mar. 186 |
| 1600 | Levant, c, St. Just | 10 8 1 | .. | .. | June, 186 |
| 024 | Lovell Consols, t | .. | .. | .. | .. |
| 6000 | Maes-y-Safn, t* | 20 0 0 | .. | .. | Jan. 186 |
| 6000 | Mandlin, c, Lostwithiel | 4 7 0 | .. | .. | May, 186 |
| 024 | Mount Pleasant, t, Mold | 4 0 0 | .. | .. | .. |
| 300 | Nangle, t, c, Kea | 27 5 0 | .. | .. | Feb. 186 |
| 6000 | Nether Heath* [4000 £1 pd., 2000 10s. pd.] | .. | .. | .. | .. |
| 6000 | New Birch, c, Redruth | 13 6 6 | .. | .. | Oct. 186 |
| 6000 | New Clifford, c, Gwennap* | 2 10 0 | .. | .. | May 186 |
| 6000 | New Cornish [12000 £1 pd., 12000 15s. pd.] | .. | .. | .. | Sept. 186 |
| 514 | N. Crow Hill, t, St. Stephen | 3 3 0 | .. | .. | June 186 |
| 4000 | New E. Russell, c, Tavistock | 0 11 6 | .. | .. | April, 186 |
| 4000 | New Hendra, t, c, Breage | 14 11 0 | .. | .. | Mar. 186 |
| 6000 | New Pembroke, t, c | 1 4 6 | .. | .. | July 186 |
| 6000 | New Trevelen, c, Redruth | 4 8 0 | .. | .. | May, 186 |
| 299 | New Trevelen, t, Wendron | 8 14 0 | .. | .. | May 186 |
| 4000 | New Wheel, t, Redruth | 4 0 0 | .. | .. | May 186 |
| 4000 | New Wb. Seton, c, Camborne | 56 5 0 | .. | .. | April 186 |
| 6000 | New Wheel Towan, c, t | 1 10 0 | .. | .. | July, 186 |
| 6000 | North Devon, s-t* | 0 17 0 | .. | .. | July 186 |
| 6000 | No. Dolcoath, c, Camborne | 4 3 0 | .. | .. | Mar. 186 |
| 1467 | North Downs, c, Redruth | 16 8 4 | .. | .. | June 186 |
| 6000 | No. Grambler, c, Redruth | 6 19 9 | .. | .. | Dec. 186 |
| 6000 | N. Hallenbeck [8000 £1 pd., 8000 8s. 6d. pd.] | .. | .. | .. | July, 186 |
| 6000 | North Jane, t, s-t, Kenwyn | 3 6 6 | .. | .. | Oct. 186 |
| 6000 | North Levant, t, St. Just | 10 12 6 | .. | .. | Mar. 186 |
| 6000 | Nth. Miners, t, Wretham | 1 0 0 | .. | .. | .. |
| 6000 | N. Phoenix, c, Linkinhorne | 4 2 6 | .. | .. | May, 186 |
| 323 | North Pool, c, Illogan | 5 16 0 | .. | .. | Mar. 186 |
| 294 | North Retallack Mine | 2 0 0 | 5 | 4% 4% | Feb. 186 |
| 395 | No. Roseker, c, Camborne | 52 14 0 | .. | .. | July 186 |
| 6000 | North Shepherds, t* | 6 10 0 | .. | .. | .. |
| 6000 | No. Trekerby, c, St. Agnes | 1 9 0 | 1 | 1 1/2 | .. |
| 6000 | North Wherry, c, t, H. | .. | .. | .. | April, 186 |
| 610 | Norwich Basset, c, H. | 3 11 6 | 3% | 3% 3% | July 186 |
| 6000 | North Wh. Chiverton, t | 4 0 0 | .. | .. | Mar. 186 |
| 44 | N. Wb. Robert, Smp. Spiney | 4 8 11 | .. | .. | Mar. 186 |
| 88 | Okeford, c, Calstock | 2 7 4 | .. | .. | Aug. 186 |
| 6000 | Okehampton | 1 10 0 | .. | .. | .. |
| 6000 | Old Gunnislake, c, Calstock | 2 15 0 | .. | .. | Mar. 186 |
| 600 | Old Westminster, Denbigh* | 2 0 0 | 2% | 2% 2% | Mar. 186 |
| 6000 | Par Consols, c, St. Blazey* | 2 12 0 | .. | .. | July 186 |
| 6000 | Pedra-an-drea, t, Redruth | 6 15 6 | .. | .. | Feb. 186 |
| 6000 | Penden Consols, c, St. Just | 6 15 6 | .. | .. | May 186 |
| 335 | Penhale Wheel Vor, t, c | 3 12 6 | .. | .. | July 186 |
| 6000 | Penhalls, t, St. Agnes | 3 0 0 | .. | .. | May, 186 |
| 72 | Polberro, t, St. Agnes | 15 0 0 | .. | .. | .. |
| 12 | Polbreon, t, St. Agnes | 8 0 0 | .. | .. | Aug. 186 |
| 6000 | Prince Arthur Consols, t* | 2 0 0 | .. | .. | .. |
| 6000 | Prince of Wales, t, Calstock | 0 12 6 | 57% | 56% 57% | Feb. 186 |
| 6000 | Redmoor, c, t, Callington | 1 11 6 | .. | .. | Feb. 186 |
| 6000 | Redmoor, t, I. of Man | .. | .. | .. | .. |
| 24 | Rose and Grey, t, I. of Man | 5 0 0 | 6% | 6 6% | Nov. 186 |
| 6000 | Rosecliff and Tolcarne, t* | 9 0 0 | .. | .. | April 186 |
| 73 | Rosewarne Consols, c | 5 2 6 | .. | .. | Feb. 186 |
| 15 | Rosewall Hill & Ransom, c | 3 0 0 | 2% | 2 2% | Aug. 186 |
| 48 | Rosewarne United, c, t | 4 3 0 | .. | .. | June 186 |
| 6000 | Snaefell, t, Isle of Man* | 1 0 0 | .. | .. | .. |
| 6000 | Silver Brook, s-t, Cmar* | 10 0 0 | .. | .. | July, 186 |
| 6000 | Stithney Wheel Metal, t | 4 6 6 | .. | .. | Oct. 186 |
| 6000 | Stridgo, c, t, Tavistock | 1 0 0 | .. | .. | Oct. 186 |
| 12 | Sub Bassett, c, Wretham | 25 10 0 | .. | .. | .. |
| 94 | South Callington, s-t, I. | 15 16 6 | 2% | 2 2% | Jan. 186 |
| 6000 | So. Chiverton, t, t, Perranz | 5 15 0 | .. | .. | June, 186 |
| 38 | So. Conduffrow, c, c, Camb. | 13 9 6 | .. | .. | May 186 |
| 83 | So. Conduffrow, c, c, Crowan | 12 9 0 | .. | .. | Oct. 186 |